



STIC Search Report

EIC 1700

STIC Database Tracking Number: 126489

TO: Amanda Walke
Location: *Remsen 9D64*
Art Unit : 1752
July 9, 2004

Case Serial Number: 10/713606

From: Kathleen Fuller
Location: EIC 1700
REMSEN 4B28
Phone: 571/272-2505
Kathleen.Fuller@uspto.gov

Search Notes

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Annanda Wallace Examiner #: 75663 Date: 6/2/04
Art Unit: 1752 Phone Number 30 272-1334 Serial Number: 10/713666
Mail Box and Bldg/Room Location: REM 9D64 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Bob Sheet attached

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for compts a, b, +c (separately) Thank you.

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>K. F. Miller</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>12</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>7/9/04</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>140</u>	Other _____	Other (specify) _____

PTO-1590 (8-01) 3 subseq searches



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28



=> FILE REG

FILE 'REGISTRY' ENTERED AT 12:19:26 ON 09 JUL 2004
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 8 JUL 2004 HIGHEST RN 706430-72-0
DICTIONARY FILE UPDATES: 8 JUL 2004 HIGHEST RN 706430-72-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> FILE HCAPLUS

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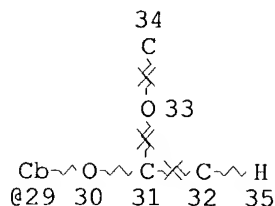
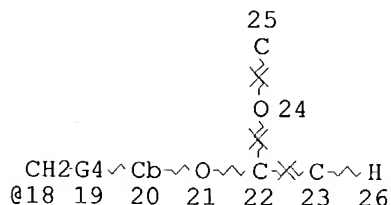
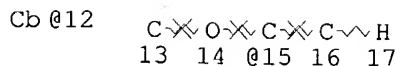
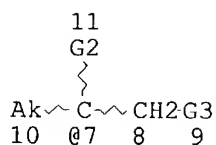
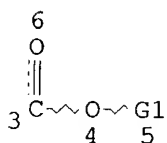
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FILE COVERS 1907 - 9 Jul 2004 VOL 141 ISS 3
FILE LAST UPDATED: 8 Jul 2004 (20040708/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE

L5 SCR 2043
L12 STR



VAR G1=7/15/18/29

VAR G2=H/AK

VAR G3=H/12

REP G4=(0-9) CH2

NODE ATTRIBUTES:

NSPEC	IS	RC	AT	13
NSPEC	IS	RC	AT	14
NSPEC	IS	RC	AT	15
NSPEC	IS	RC	AT	16
NSPEC	IS	RC	AT	22
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NSPEC	IS	RC	AT	25
NSPEC	IS	RC	AT	31
NSPEC	IS	RC	AT	32
NSPEC	IS	RC	AT	33
NSPEC	IS	RC	AT	34

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

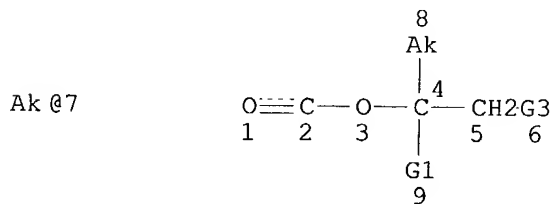
NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

L15 SCR 193 OR 195

L17 21384 SEA FILE=REGISTRY SSS FUL L12 AND L5 AND L15

L20 STR



Cb @10

*21,384 structures from
query covering
a or b or c*

*Subset search
covering a*

VAR G1=H/7
 VAR G3=H/7/10
 NODE ATTRIBUTES:
 CONNECT IS E1 RC AT 1
 CONNECT IS E1 RC AT 7
 CONNECT IS E1 RC AT 8
 DEFAULT MLEVEL IS ATOM
 GGCAT IS SAT AT 10
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M1-X6 C AT 7
 ECOUNT IS M1-X6 C AT 8

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L23 15179 SEA FILE=REGISTRY SUB=L17 SSS FUL L20
 L24 13032 SEA FILE=HCAPLUS ABB=ON L23
 L25 57 SEA FILE=HCAPLUS ABB=ON L24 AND PROTECT?(4A)LAYER?
 L26 26 SEA FILE=HCAPLUS ABB=ON L25 AND (DEVICE? OR DEV/RL)
 L27 15 SEA FILE=HCAPLUS ABB=ON L25 AND ELECTR?/SC,SX,AB,BI
 L28 30 SEA FILE=HCAPLUS ABB=ON L26 OR L27
 L55 59 SEA FILE=HCAPLUS ABB=ON L24 AND COAT?(5A)PROTECT?
 L56 20 SEA FILE=HCAPLUS ABB=ON L55 AND (DEVICE? OR DEV/RL OR
 ELECTR?/SC,SX,AB,BI)
 L57 45 SEA FILE=HCAPLUS ABB=ON L28 OR L56

=> D L57 BIB ABS HITIND HITSTR 1-45

*45 CA references for
 a with utility*

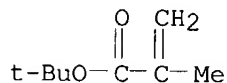
L57 ANSWER 1 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:453529 HCAPLUS
 DN 141:8652
 TI **Protective layers** compatible with thick film pastes
 IN Kim, Young H.
 PA E.I. Du Pont De Nemours and Company, USA
 SO PCT Int. Appl., 17 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

Applicant

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004047166	A2	20040603	WO 2003-US36542	20031114
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI US 2002-426738P	P	20021115		
AB Novel coating processes use a protective polymer layer in the fabrication of electronic devices				

using thick film pastes. The **protective polymer layer** is fabricated from materials which are insol. after irradiation in the ester-type solvents contained in the thick film paste. By appropriate selection of protective film polymers, the protective film can be compatible with the thick film paste.

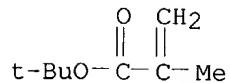
IC ICM H01L023-00
 CC 42-2 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 74, 76
 ST pos photoimageable coating **electronic** substrate
 IT **Coating materials**
 (UV-curable; **protective layers** compatible with thick film pastes containing aggressive solvents in manufacture of **electronic devices**)
 IT **Coating process**
 Positive photoresists
 (**protective layers** compatible with thick film pastes containing aggressive solvents in manufacture of **electronic devices**)
 IT 25189-00-8, tert-Butyl methacrylate homopolymer 72145-62-1
 ; tert-Butyl methacrylate-methacrylic acid-methyl methacrylate copolymer
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (**protective layers** compatible with thick film pastes containing aggressive solvents in manufacture of **electronic devices**)
 IT 697303-60-9, Ethoxytriethylene glycol methacrylate-tert-butyl methacrylate block copolymer 697303-61-0, tert-Butyl methacrylate-ethoxytriethylene glycol acrylate copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**protective layers** compatible with thick film pastes containing aggressive solvents in manufacture of **electronic devices**)
 IT 25189-00-8, tert-Butyl methacrylate homopolymer 72145-62-1
 , tert-Butyl methacrylate-methacrylic acid-methyl methacrylate copolymer
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (**protective layers** compatible with thick film pastes containing aggressive solvents in manufacture of **electronic devices**)
 RN 25189-00-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, homopolymer (9CI)
 (CA INDEX NAME)
 CM 1
 CRN 585-07-9
 CMF C8 H14 O2



RN 72145-62-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

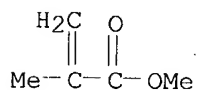
CM 1

CRN 585-07-9
CMF C8 H14 O2



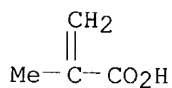
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

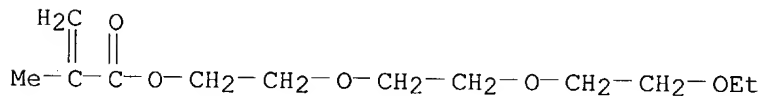
CRN 79-41-4
CMF C4 H6 O2



IT 697303-60-9, Ethoxytriethylene glycol methacrylate-tert-butyl methacrylate block copolymer 697303-61-0, tert-Butyl methacrylate-ethoxytriethylene glycol acrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(**protective layers** compatible with thick film pastes containing aggressive solvents in manufacture of **electronic devices**)
RN 697303-60-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 2-[2-(2-ethoxyethoxy)ethoxy]ethyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

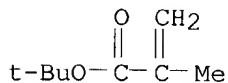
CM 1

CRN 39670-09-2
CMF C12 H22 O5



CM 2

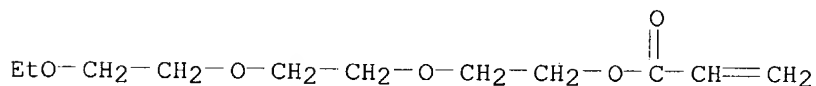
CRN 585-07-9
CMF C8 H14 O2



RN 697303-61-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with
2-[2-(2-ethoxyethoxy)ethoxy]ethyl 2-propenoate (9CI) (CA INDEX NAME)

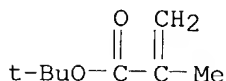
CM 1

CRN 45180-95-8
CMF C11 H20 O5



CM 2

CRN 585-07-9
CMF C8 H14 O2



L57 ANSWER 2 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:433378 HCAPLUS

DN 141:14462

TI Polyamides, positive photoimaging compositions therewith, and
semiconductor **devices** fabricated therewith

IN Hirano, Takashi; Banba, Toshio; Takeda, Naoshige

PA Sumitomo Bakelite Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 31 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004151447	A2	20040527	JP 2002-317494	20021031
PRAI	JP 2002-317494		20021031		

AB The polyamides, showing high transmittance, good machinability at large
thickness, and comprise [NHX(OP1)(OP2)NHC(O)Y]a(NHZNHC(O)YCO)b [X =
tetraivalent aromatic group; Y = bivalent aromatic group; P1, P2 = H, C1-20
organic

group including 1-50% the organic group; Z = R1SiRR3R4OSiR3R4R2 (R1, R2 = bivalent organic group; R3, R4 = monovalent organic group); a = 60.0-100; b = 0-40.0]. Photoimaging materials containing the polyamides 100, photosensitive diazoquinones 1-100, and bisphenolmethane and/or triphenolmethane derivs. (Markush given) 1-50 parts are also claimed. The materials are applied at cure thickness 0.1-30 μ m, prebaked, exposed, developed, and post baked to afford patterns as interlayer insulators or dielec. **protective layers on semiconductor devices.**

IC ICM G03F007-037

CC ICS C08G069-42; G03F007-004; G03F007-039; G03F007-075; H01L021-027
74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

IT Polyamides, reactions

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(hydroxy-containing; pos. photoimaging polyamide compns. containing diazoquinones for interlayer insulators or dielec. coatings of semiconductor **devices**)

IT Polysiloxanes, reactions

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(polyamide-, block, hydroxy-containing; pos. photoimaging polyamide compns. containing diazoquinones for interlayer insulators or dielec. coatings of semiconductor **devices**)

IT Polyamides, reactions

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(polysiloxane-, block, hydroxy-containing; pos. photoimaging polyamide compns. containing diazoquinones for interlayer insulators or dielec. coatings of semiconductor **devices**)

IT Photoimaging materials

Semiconductor **devices**

(pos. photoimaging polyamide compns. containing diazoquinones for interlayer insulators or dielec. coatings of semiconductor **devices**)

IT Polybenzoxazoles

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pos. photoimaging polyamide compns. containing diazoquinones for interlayer insulators or dielec. coatings of semiconductor **devices**)

IT 693817-33-3P 693817-34-4P 693817-35-5P 693817-37-7P,

1,3-Bis(3-aminopropyl)-1,1,3,3-tetramethyldisiloxane-3,3'-diamino-4,4'-dihydroxydiphenyl-isophthalic acid-oxybisbenzoic acid block copolymer ester with di-tert-butyl bicarbonate

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(benzoxazole ring-containing; pos. photoimaging polyamide compns. containing diazoquinones for interlayer insulators or dielec. coatings of semiconductor **devices**)

IT 2467-02-9 27955-94-8

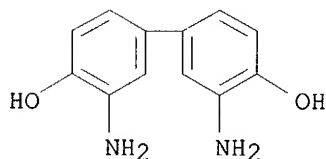
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(pos. photoimaging polyamide compns. containing diazoquinones for interlayer insulators or dielec. coatings of semiconductor **devices**)

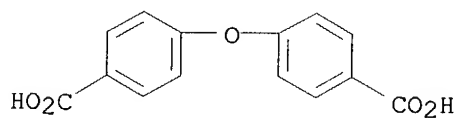
devices)
 IT 137902-98-8 138636-85-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (pos. photoimaging polyamide compns. containing diazoquinones for
 interlayer insulators or dielec. coatings of semiconductor
 devices)
 IT 693817-33-3P 693817-37-7P, 1,3-Bis(3-aminopropyl)-
 1,1,3,3-tetramethyldisiloxane-3,3'-diamino-4,4'-dihydroxydiphenyl-
 isophthalic acid-oxybisbenzoic acid block copolymer ester with
 di-tert-butyl bicarbonate
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (benzoxazole ring-containing; pos. photoimaging polyamide compns. containing
 diazoquinones for interlayer insulators or dielec. coatings of
 semiconductor devices)
 RN 693817-33-3 HCAPLUS
 CN 1,3-Benzenedicarboxylic acid, polymer with 3,3'-diamino[1,1'-biphenyl]-
 4,4'-diol and 4,4'-oxybis[benzoic acid], 1,1-dimethylethyl carbonate
 (ester) (9CI) (CA INDEX NAME)
 CM 1
 CRN 51300-90-4
 CMF C5 H10 O3

t-Bu-O-CO₂H

CM 2
 CRN 693817-32-2
 CMF (C14 H10 O5 . C12 H12 N2 O2 . C8 H6 O4)x
 CCI PMS
 CM 3
 CRN 4194-40-5
 CMF C12 H12 N2 O2



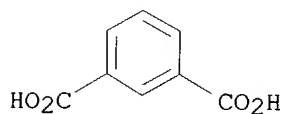
CM 4
 CRN 2215-89-6
 CMF C14 H10 O5



CM 5

CRN 121-91-5

CMF C8 H6 O4



RN 693817-37-7 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 3,3'-diamino[1,1'-biphenyl]-4,4'-diol, 4,4'-oxybis[benzoic acid] and 3,3'-(1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis[1-propanamine], 1,1-dimethylethyl carbonate (ester), block (9CI) (CA INDEX NAME)

CM 1

CRN 51300-90-4

CMF C5 H10 O3

t-Bu-O-CO₂H

CM 2

CRN 693817-36-6

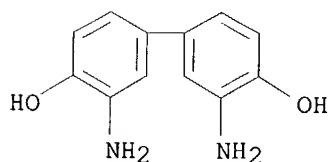
CMF (C14 H10 O5 . C12 H12 N2 O2 . C10 H28 N2 O Si2 . C8 H6 O4)x

CCI PMS

CM 3

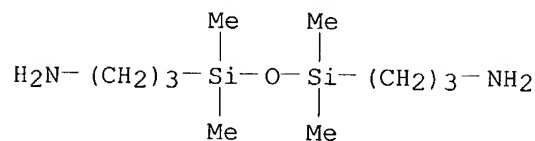
CRN 4194-40-5

CMF C12 H12 N2 O2



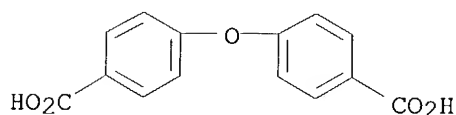
CM 4

CRN 2469-55-8
CMF C10 H28 N2 O Si2



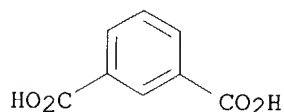
CM 5

CRN 2215-89-6
CMF C14 H10 O5



CM 6

CRN 121-91-5
CMF C8 H6 O4



L57 ANSWER 3 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:180489 HCAPLUS
DN 140:225722
TI Heat-developable photographic film with smear-resistant **protective coating layer**
IN Ueda, Eiichi; Nakajima, Akihisa; Nagaike, Chiaki
PA Konica Minolta Holdings Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004070215	A2	20040304	JP 2002-232778	20020809
PRAI	JP 2002-232778		20020809		

AB The invention relates to a heat-developable photog. film which contains a smear-resistant **protective coating layer** comprising a polymer with an active methylene group or a maleic anhydride unit.

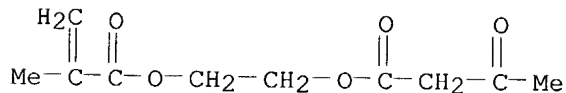
IC ICM G03C001-76

ICS G03C001-498
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 ST heat developable photog film **protective coating**
 methylene maleic anhydride
 IT Fluoropolymers, uses
 RL: **DEV (Device component use); USES (Uses)**
 (heat-developable photog. film with smear-resistant **protective coating layer** comprising)
 IT Photographic films
 (heat-developable; heat-developable photog. film with smear-resistant **protective coating layer**)
 IT 9011-13-6, Maleic anhydride-styrene copolymer 33593-64-5, Butyl acrylate-maleic anhydride-styrene copolymer 112311-62-3, 2-Acetoacetoxyethyl methacrylate-butyl acrylate-styrene copolymer 252368-72-2, 2-Acetoacetoxyethyl methacrylate-butyl acrylate-cyclohexyl methacrylate copolymer 252368-78-8, 2-Acetoacetoxyethyl methacrylate-ethyl acrylate-styrene copolymer **666707-37-5**, 2-Acetoacetoxyethyl methacrylate-butyl acrylate-tert-butyl acrylate-styrene copolymer **666707-38-6**, 2-Acetoacetoxyethyl methacrylate-tert-butyl acrylate-isononyl acrylate-styrene copolymer 666707-40-0
 RL: **DEV (Device component use); USES (Uses)**
 (heat-developable photog. film with smear-resistant **protective coating layer** comprising)
 IT **666707-37-5**, 2-Acetoacetoxyethyl methacrylate-butyl acrylate-tert-butyl acrylate-styrene copolymer **666707-38-6**, 2-Acetoacetoxyethyl methacrylate-tert-butyl acrylate-isononyl acrylate-styrene copolymer
 RL: **DEV (Device component use); USES (Uses)**
 (heat-developable photog. film with smear-resistant **protective coating layer** comprising)
 RN 666707-37-5 HCAPLUS
 CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with butyl 2-propenoate, 1,1-dimethylethyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 21282-97-3

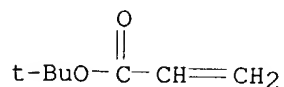
CMF C10 H14 O5



CM 2

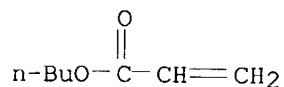
CRN 1663-39-4

CMF C7 H12 O2



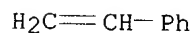
CM 3

CRN 141-32-2
CMF C7 H12 O2



CM 4

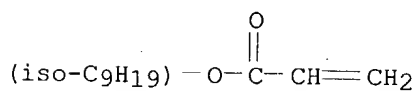
CRN 100-42-5
CMF C8 H8



RN 666707-38-6 HCAPLUS
CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 1,1-dimethylethyl 2-propenoate, ethenylbenzene and isononyl 2-propenoate (9CI) (CA INDEX NAME)

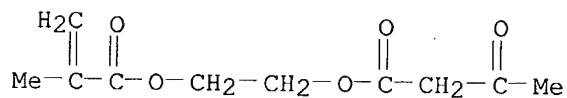
CM 1

CRN 51952-49-9
CMF C12 H22 O2
CCI IDS



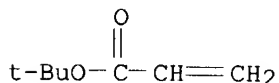
CM 2

CRN 21282-97-3
CMF C10 H14 O5



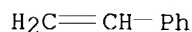
CM 3

CRN 1663-39-4
CMF C7 H12 O2



CM 4

CRN 100-42-5
CMF C8 H8



L57 ANSWER 4 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:696367 HCAPLUS
DN 139:221615
TI Lithographic process for reducing the lateral chromium structure loss in
photomask production using chemically amplified resists
IN Eliau, Klaus; Sebal, Michael
PA Germany
SO U.S. Pat. Appl. Publ., 8 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003165751	A1	20030904	US 2003-375531	20030227
	DE 10208448	A1	20030911	DE 2002-10208448	20020227
PRAI	DE 2002-10208448	A	20020227		

AB A film of a photoresist, as used for structuring semiconductor substrates, for example a CARL resist, is applied to a chromium-coated quartz glass substrate in a process for producing photomasks. The photoresist layer is written on by a focused **electron** beam, heated and then developed. The now structured resist is treated with an amplification agent and thus increases in its etch resistance to an oxygen plasma. During etching of the bare chromium sections, the silicon introduced into the photoresist is converted into silicon dioxide, which forms a **protective layer** on the chromium **layer**. Thus, the structure written in by the **electron** beam can be transferred without loss into the chromium layer.

IC ICM G03F009-00

ICS G03C005-00; G03C001-494; G03C001-492; G03C001-76

NCL 430005000; 430322000; 430323000; 430324000; 430270100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38, 76

IT **Electron** beam lithography

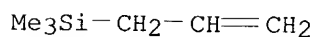
(for reducing lateral chromium structure loss in photomask production using chemical amplified resists)

IT 590384-41-1P, Allyltrimethylsilane-tert-butyl methacrylate-maleic

anhydride-methacrylic acid copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (lithog. process for photomask production using chemical amplified resists)
 IT 590384-41-1P, Allyltrimethylsilane-tert-butyl methacrylate-maleic anhydride-methacrylic acid copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (lithog. process for photomask production using chemical amplified resists)
 RN 590384-41-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, 2,5-furandione and trimethyl-2-propenylsilane (9CI)
 (CA INDEX NAME)

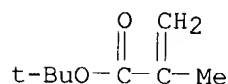
CM 1

CRN 762-72-1
 CMF C6 H14 Si



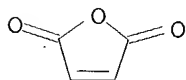
CM 2

CRN 585-07-9
 CMF C8 H14 O2



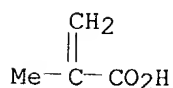
CM 3

CRN 108-31-6
 CMF C4 H2 O3



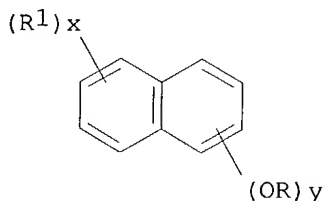
CM 4

CRN 79-41-4
 CMF C4 H6 O2

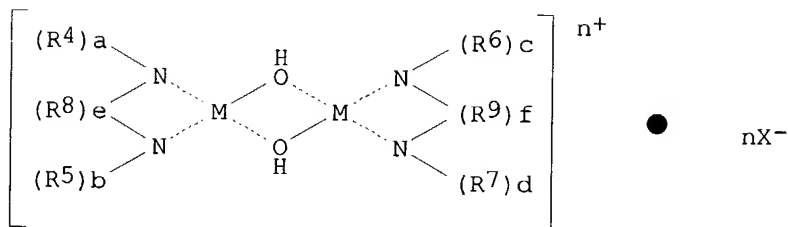


L57 ANSWER 5 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:506784 HCAPLUS
 DN 139:93625
 TI Preparation of polynaphthylenes, their positive photopolymer compositions, patterning of their films, and **electric** parts with patterned films
 IN Ueda, Mitsuru; Sasada, Yasuyuki; Hiroshi, Masahiko
 PA Hitachi Chemical Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003183362	A2	20030703	JP 2001-387845	20011220
PRAI	JP 2001-387845		20011220		
OS	MARPAT 139:93625				
GI					



I



II

AB In the process, naphthalene derivs. represented by general formula I (R_1 = halogen or C1-9 alkyl which are bonded to the naphthalene ring; R_2 = monovalent organic group which are bonded to O bonding to the naphthalene ring; R_3 = H, monovalent organic group bonded to O bonding to the naphthalene ring and can be converted to H by acid decomposition; $x = 0-4$ integer; $y \geq 2$ integer; $x + y \leq 6$ natural number) are allowed to react in liquid phases in the presence of catalysts to give polynaphthylenes containing repeating units derived from I. The catalysts may comprise organometal complexes represented by general formula II (R_4-R_7 = H, C1-6 organic group; R_8, R_9 = divalent or monovalent organic group; M = transition metal atom; X = halogen, OH; $n = 1-4$ natural number; $a, b, c, d = 0, 1, 2$; e, f = natural no; $a + e, b + e, c + f$, and $d + f = 3$, resp.). The pos. photopolymer compns. contain (A) the polynaphthylenes I ($R = R_3$) and (B)

photoacid generators. The compns. are applied on support substrates, dried, exposed to light, and developed with aqueous alkalis to give patterns for surface protection films ro interlayer dielects. of **elec.** parts.

- IC ICM C08G061-10
- ICS G03F007-039; H01L021-027
- CC 76-3 (**Electric** Phenomena)
- Section cross-reference(s): 35, 38, 74
- ST pos polynaphthalene compn interlayer dielec; surface **protection**
layer pos polynaphthalene compn; semiconductor **device**
interlayer dielec polynaphthalene compn; organometal complex catalyst
polynaphthalene prepn
- IT Dielectric films
(interlayer dielects.; preparation of polynaphthylenes and their pos.
photopolymer compns. for interlayer dielects. and surface protection
films of **elec.** parts)
- IT Semiconductor **devices**
(preparation of polynaphthylenes and their pos. photopolymer compns. for
interlayer dielects. and surface protection films of)
- IT Photoimaging materials
(preparation of polynaphthylenes and their pos. photopolymer compns. for
interlayer dielects. and surface protection films of **elec.**
parts)
- IT 85342-62-7 121172-98-3, p-Nitrobenzyl-9,10-dimethoxy
anthracene-2-sulfonate 137308-86-2, Diphenyliodonium-9,10-dimethoxy
anthracene-2-sulfonate 137902-98-8
RL: CAT (Catalyst use); USES (Uses)
(photoacid generator; preparation of polynaphthylenes and their pos.
photopolymer compns. for interlayer dielects. and surface protection
films of **elec.** parts)
- IT 30698-64-7 382617-57-4 553676-73-6 553676-75-8 553676-76-9
553676-78-1
RL: CAT (Catalyst use); USES (Uses)
(preparation of polynaphthylenes and their pos. photopolymer compns. for
interlayer dielects. and surface protection films of **elec.**
parts)
- IT 121136-23-0P, 2,6-Dihydroxynaphthalene homopolymer 147398-48-9P,
2,7-Dihydroxynaphthalene homopolymer 553645-17-3P, Poly(2,6-
dihydroxynaphthalenediyl) 553645-27-5P, Poly(2,7-
dihydroxynaphthalenediyl)
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of polynaphthylenes and their pos. photopolymer compns. for
interlayer dielects. and surface protection films of **elec.**
parts)
- IT 110-87-2DP, 3,4-Dihydro-2H-pyran, reaction products with
2,6-dihydroxynaphthalene homopolymer **553642-16-3P**
553645-24-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(preparation of polynaphthylenes and their pos. photopolymer compns. for
interlayer dielects. and surface protection films of **elec.**
parts)
- IT **553642-16-3P 553645-24-2P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(preparation of polynaphthylenes and their pos. photopolymer compns. for
interlayer dielects. and surface protection films of **elec.**
parts)
- RN 553642-16-3 HCAPLUS

CN 2,6-Naphthalenediol, homopolymer, 1,1-dimethylethyl carbonate (9CI) (CA INDEX NAME)

CM 1

CRN 51300-90-4

CMF C5 H10 O3

t-Bu-O-CO₂H

CM 2

CRN 121136-23-0

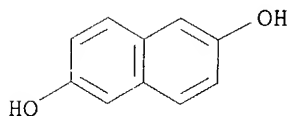
CMF (C10 H8 O2)_x

CCI PMS

CM 3

CRN 581-43-1

CMF C10 H8 O2



RN 553645-24-2 HCAPLUS

CN Poly(2,6-dihydroxynaphthalenediyl), 1,1-dimethylethyl carbonate (9CI) (CA INDEX NAME)

CM 1

CRN 553645-17-3

CMF (C10 H6 O2)_n

CCI IDS, PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 51300-90-4

CMF C5 H10 O3

t-Bu-O-CO₂H

L57 ANSWER 6 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:766138 HCAPLUS

DN 137:302210

TI Light-sensitive resin composition for forming patterned layers such as **protecting layers** in **electric devices**

IN Kodemura, Junji; Kawahara, Kohei
 PA Nippon Zeon Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002296780	A2	20021009	JP 2001-100586	20010330
PRAI	JP 2001-100586		20010330		

AB The title composition contains a polymer made of cyclic olefins, a controlling agent for solubility of the resin, a photoacid generator, and a crosslinking agent, wherein the polymer is prepared by ring opening polymerization of cyclic olefins. The composition provides fine patterned layer of the low dielec. constant and degas property along with the good material characteristics.

IC ICM G03F007-039
 ICS C08K005-00; C08L045-00; C08L065-00; C08L101-02; G03F007-40; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

ST light sensitive resin compn patterned **layer protecting elec**

IT Dielectric films
 Light-sensitive materials
 Photoresists
 Semiconductor **device** fabrication
 (light-sensitive resin composition for patterned **layers** such as **protecting layers** in **elec. devices**)

IT 661-20-1D, Isocyanate, derivative 29570-58-9, Dipentaerythritol hexaacrylate
 RL: CAT (Catalyst use); USES (Uses)
 (crosslinking agent; light-sensitive resin composition for patterned **layers** such as **protecting layers** in **elec. devices**)

IT 108-31-6DP, Maleic anhydride, reaction products with 8-ethyltetracyclo[4.4.0.12,5.17,10]dodec-3-ene homopolymer 134490-17-8DP, 8-Ethyltetracyclo[4.4.0.12,5.17,10]dodec-3-ene homopolymer, hydrogenated, reaction products with maleic anhydride 470459-43-9DP, hydrogenated, hydrolyzed
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (light-sensitive resin composition for patterned **layers** such as **protecting layers** in **elec. devices**)

IT 17111-95-4D, triaryl, derivative
 RL: CAT (Catalyst use); USES (Uses)
 (photopolymn. initiator; light-sensitive resin composition for patterned **layers** such as **protecting layers** in **elec. devices**)

IT 194991-29-2P, Tert-butyl methacrylate-methacrylic acid-Isobornyl methacrylate copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resin solubility-controlling agent; light-sensitive resin composition for patterned **layers** such as **protecting layers** in **elec. devices**)

IT 194991-29-2P, Tert-butyl methacrylate-methacrylic acid-Isobornyl

methacrylate copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(resin solubility-controlling agent; light-sensitive resin composition for patterned **layers** such as **protecting layers** in **elec. devices**)

RN 194991-29-2 HCAPLUS

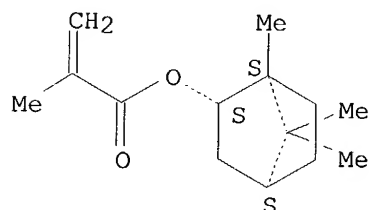
CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate and rel-(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7534-94-3

CMF C14 H22 O2

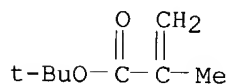
Relative stereochemistry.



CM 2

CRN 585-07-9

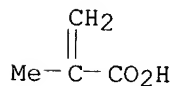
CMF C8 H14 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



L57 ANSWER 7 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:712908 HCAPLUS

DN 137:239726

TI Photosensitive composition

IN Pirri, Rosangela; Verzaro, Francis; Meyer, Heinrich; Desmasion, Gonzalo Urrutia; Meunier, Gilles

PA Atotech Deutschland G.m.b.H., Germany
 SO U.S., 12 pp., Cont.-in-part of U. S. Ser. No. 85,911, abandoned.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6451498	B1	20020917	US 2000-544309	20000406
	DE 19546140	A1	19970605	DE 1995-19546140	19951128
	DE 19546140	C2	19980806		
PRAI	DE 1995-19546140	A	19951128		
	US 1998-85911	B2	19980528		

AB The invention relates to photosensitive compns., which can be developed pos., and to their use as etching or galvano resist in the structuring of metal coatings on **elec.** circuit-substrates. Traditional compns. have either inadequate photosensitivity or they are not appropriate for use on the copper surfaces, for example of circuit boards, since the exposed coating sections of the composition cannot be completely removed during developing, which results in problems in subsequent plating or etching. In the photosensitive compns. according to the invention, these disadvantages cannot be observed. Various compns. are described, which contain photo acid generators and a polymer resin with side groups, which can split acid, said polymer resin being formed by polymerizing at least three different acrylate- or methacrylate-monomers.

IC ICM G03C001-73

NCL 430270100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38, 76

ST photoresist **coating** etching **protection** circuit board

IT **72145-62-1P**, tert-Butylmethacrylate-methacrylic

acid-methylmethacrylate copolymer **144739-22-0P**,

tert-Butylmethacrylate-2-ethylhexylacrylate-methacrylic

acid-methylmethacrylate copolymer **148798-81-6P**,

Butylacrylate-tert-butylmethacrylate-methacrylic acid-methylmethacrylate

copolymer **191411-13-9P**, tert-Butylmethacrylate-methacrylic

acid-methylmethacrylate-nonylacrylate copolymer **191411-57-1P**,

tert-Butylmethacrylate-hydroxypropylmethacrylate-methacrylic

acid-methylmethacrylate copolymer **191411-60-6P**,

Butylacrylate-tert-butylmethacrylate-hydroxypropylmethacrylate-methacrylic

acid-methylmethacrylate copolymer

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses)

(photosensitive composition for etching resist for producing circuit boards containing)

IT **72145-62-1P**, tert-Butylmethacrylate-methacrylic

acid-methylmethacrylate copolymer **144739-22-0P**,

tert-Butylmethacrylate-2-ethylhexylacrylate-methacrylic

acid-methylmethacrylate copolymer **148798-81-6P**,

Butylacrylate-tert-butylmethacrylate-methacrylic acid-methylmethacrylate

copolymer **191411-13-9P**, tert-Butylmethacrylate-methacrylic

acid-methylmethacrylate-nonylacrylate copolymer **191411-57-1P**,

tert-Butylmethacrylate-hydroxypropylmethacrylate-methacrylic

acid-methylmethacrylate copolymer **191411-60-6P**,

Butylacrylate-tert-butylmethacrylate-hydroxypropylmethacrylate-methacrylic

acid-methylmethacrylate copolymer

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses)

(photosensitive composition for etching resist for producing circuit boards containing)

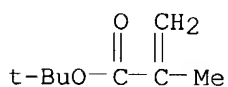
RN 72145-62-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 585-07-9

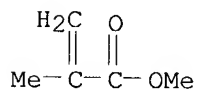
CMF C8 H14 O2



CM 2

CRN 80-62-6

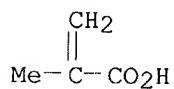
CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



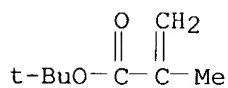
RN 144739-22-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, 2-ethylhexyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

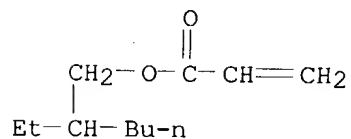
CRN 585-07-9

CMF C8 H14 O2



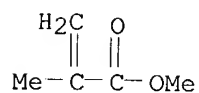
CM 2

CRN 103-11-7
CMF C11 H20 O2



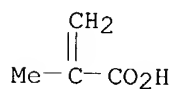
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

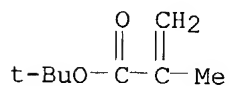
CRN 79-41-4
CMF C4 H6 O2



RN 148798-81-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
1,1-dimethylethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

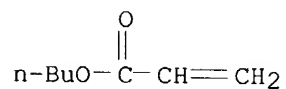
CM 1

CRN 585-07-9
CMF C8 H14 O2



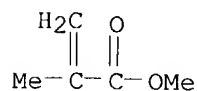
CM 2

CRN 141-32-2
CMF C7 H12 O2



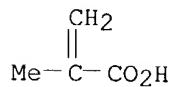
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

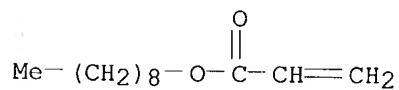
CRN 79-41-4
CMF C4 H6 O2



RN 191411-13-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and nonyl 2-propenoate
(9CI) (CA INDEX NAME)

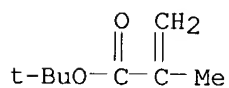
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CRN 2664-55-3
CMF C12 H22 O2



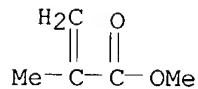
CM 2

CRN 585-07-9
CMF C8 H14 O2



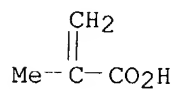
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

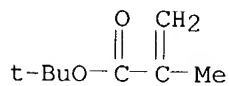
CRN 79-41-4
CMF C4 H6 O2



RN 191411-57-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 1,2-propanediol
mono(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

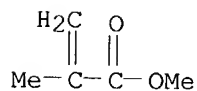
CM 1

CRN 585-07-9
CMF C8 H14 O2



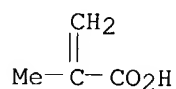
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2

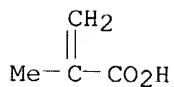


CM 4

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

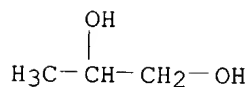
CM 5

CRN 79-41-4
CMF C4 H6 O2



CM 6

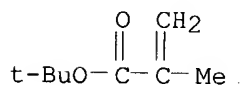
CRN 57-55-6
CMF C3 H8 O2



RN 191411-60-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
1,1-dimethylethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and
1,2-propanediol mono(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

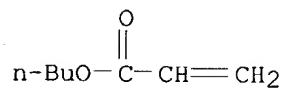
CM 1

CRN 585-07-9
CMF C8 H14 O2



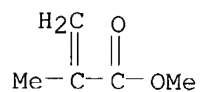
CM 2

CRN 141-32-2
CMF C7 H12 O2



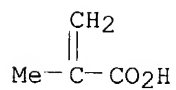
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2

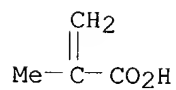


CM 5

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

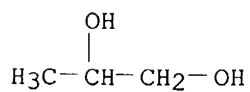
CM 6

CRN 79-41-4
CMF C4 H6 O2



CM 7

CRN 57-55-6
CMF C3 H8 O2



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 8 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:293491 HCAPLUS
DN 136:306383
TI Improvements in detection using an indicator having a signaling
layer protected by a degradable **layer**
IN Ferguson, Drew Mercer; Milan, Guy Dimitri; Dow, Crawford Stewart; Swoboda,
Uthaya
PA Cambridge Meditech Limited, UK
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002030478	A2	20020418	WO 2001-GB4588	20011015
	WO 2002030478	A3	20020725		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2001094047	A5	20020422	AU 2001-94047	20011015
	EP 1326653	A2	20030716	EP 2001-974532	20011015
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	BR 2001014478	A	20031118	BR 2001-14478	20011015
	JP 2004510995	T2	20040408	JP 2002-533917	20011015
	US 2004043422	A1	20040304	US 2003-381426	20030715
PRAI	GB 2000-25084	A	20001013		
	WO 2001-GB4588	W	20011015		

AB The present invention provides an indicator for the in-situ detection of the presence of a substance or a microbe at a location. The indicator comprises a layer (8) which is susceptible to degradation by the substance or microbe or a first substance associated with the microbe and a signaling layer (7) which is adapted to produce a detectable signal which indicates the presence of the substance or microbe or a second substance associated with the microbe or a further substance which is located at substantially the same location as the substance or microbe. In use the signaling **layer** is at least initially **protected** from contact with the substance or microbe or the second substance associated with the microbe or the further substance which is located at substantially the same location as the substance or microbe by the degradable layer. A cell with two chambers separated by a vertical wall of chitosan had lysozyme and blue dye in one side and water in the other. Two concns. of lysozyme could be discriminated.

IC ICM A61L015-00

CC 9-1 (Biochemical Methods)

Section cross-reference(s): 7, 10, 79, 80

IT Animal

Animal tissue culture

Body, anatomical

Culture media
Human
 (anal. of; improvements in detection using indicator having signaling
 layer protected by degradable **layer**)

IT Biopolymers
 RL: ARG (Analytical reagent use); DEV (**Device component use**);
 TEM (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (biodegradable layer containing; improvements in detection using indicator
 having signaling **layer protected** by degradable
 layer)

IT Immune system
 (cells of; improvements in detection using indicator having signaling
 layer protected by degradable **layer**)

IT Albumins, uses
 RL: ARG (Analytical reagent use); DEV (**Device component use**);
 TEM (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (crosslinked with polyvinylpyrrolidone, biodegradable layer containing;
 improvements in detection using indicator having signaling
 layer protected by degradable **layer**)

IT Apparatus
 (disks; improvements in detection using indicator having signaling
 layer protected by degradable **layer**)

IT Environment
 (domestic or laboratory; improvements in detection using indicator having
 signaling **layer protected** by degradable
 layer)

IT Medical goods
 (dressings, anal. of; improvements in detection using indicator having
 signaling **layer protected** by degradable
 layer)

IT Fluorescent substances
 (fluorogenic substrates; improvements in detection using indicator
 having signaling **layer protected** by degradable
 layer)

IT Acid-base indicators
Adhesives
Analytical apparatus
Bioassay
Biodegradable materials
Coating materials
Decay (biological)
Decomposition
Dyes
Environmental analysis
Food analysis
Hygrometers
Indicators
Liquids
Membranes, nonbiological
Microorganism
Multilayers
Packaging materials
Pipes and Tubes
Stains, coloring materials
Staphylococcus aureus
Wound
 (improvements in detection using indicator having signaling

- layer protected by degradable layer)**

IT Enzymes, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (improvements in detection using indicator having signaling
layer protected by degradable layer)
- IT Containers
 (indicator incorporated into; improvements in detection using indicator
 having signaling **layer protected by degradable layer)**
- IT Environment
 (industrial; improvements in detection using indicator having signaling
layer protected by degradable layer)
- IT Cosmetics
 (personal care products, anal. of; improvements in detection using
 indicator having signaling **layer protected by degradable layer)**
- IT Polyesters, uses
 RL: ARG (Analytical reagent use); **DEV (Device component use);**
 TEM (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (polyamide-, biodegradable layer containing; improvements in detection
 using indicator having signaling **layer protected by degradable layer)**
- IT Polyamides, uses
 RL: ARG (Analytical reagent use); **DEV (Device component use);**
 TEM (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (polyester-, biodegradable layer containing; improvements in detection
 using indicator having signaling **layer protected by degradable layer)**
- IT Polymers, uses
 RL: ARG (Analytical reagent use); **DEV (Device component use);**
 TEM (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (signalling layer containing; improvements in detection using indicator
 having signaling **layer protected by degradable layer)**
- IT Color formers
 (substrates; improvements in detection using indicator having signaling
layer protected by degradable layer)
- IT 7631-86-9, Silica, uses 7646-79-9, Cobalt chloride, uses
 RL: ARG (Analytical reagent use); **DEV (Device component use);**
 TEM (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (as moisture-sensitive indicator; improvements in detection using
 indicator having signaling **layer protected by degradable layer)**
- IT 1398-61-4, Chitin 9003-39-8D, Polyvinylpyrrolidone, crosslinked with
 albumin 9004-54-0, Dextran, uses 9004-61-9, Hyaluronic acid
 9007-27-6, Chondroitin 9012-76-4, Chitosan 9056-36-4, Keratan sulfate
 26063-00-3, Polyhydroxybutyrate **26744-04-7** 28158-21-6,
 Polytrimethylene succinate 28725-67-9, Polytrimethylene succinate
 RL: ARG (Analytical reagent use); **DEV (Device component use);**
 TEM (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (biodegradable layer containing; improvements in detection using indicator
 having signaling **layer protected by degradable layer)**
- IT 58-68-4, NADH

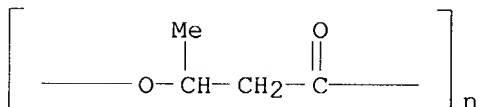
RL: ANT (Analyte); ANST (Analytical study)
 (improvements in detection using indicator having signaling
layer protected by degradable layer)

IT 9001-63-2, Lysozyme
 RL: ANT (Analyte); CAT (Catalyst use); ANST (Analytical study); USES
 (Uses)
 (improvements in detection using indicator having signaling
layer protected by degradable layer)

IT 61-73-4, Methylene blue 143-74-8, Phenol red 298-83-9, Nitro blue
 tetrazolium 596-09-8, Fluorescein diacetate 7057-57-0, Meldola's blue
 9012-76-4D, Chitosan, deacetylated 27988-97-2D, Tetrazole, derivs. and
 salts 38404-93-2, BCIP 124656-62-8
 RL: ARG (Analytical reagent use); DEV (Device component use);
 TEM (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (improvements in detection using indicator having signaling
layer protected by degradable layer)

IT 26744-04-7
 RL: ARG (Analytical reagent use); DEV (Device component use);
 TEM (Technical or engineered material use); ANST (Analytical study); USES
 (Uses)
 (biodegradable layer containing; improvements in detection using indicator
 having signaling **layer protected by degradable**
layer)

RN 26744-04-7 HCAPLUS
 CN Poly[oxy(1-methyl-3-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)



L57 ANSWER 9 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:874248 HCAPLUS

DN 136:13948

TI Flux, flux-attached low-melting-point alloy, and its use in protective
device for electronic apparatus

IN Terasawa, Kiyotomo

PA NEC Shot Corporation, Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001334394	A2	20011204	JP 2000-151078	20000523
PRAI	JP 2000-151078		20000523		

AB The flux for the alloy used in thermal fuse, resistor-attached fuse, etc.,
 contains rosins and ethylene-acrylic acid ester copolymers.
 Alternatively, the flux uses rosins containing 5-95 weight% of the copolymers
 and
 0.1-30 weight% of activators. The **protective device**
 using the flux-**coated** or -cored alloy, is also claimed. The
 flux has high heat resistance, low-temperature flexibility, and resistivity
 after fusing the alloy.

IC ICM B23K035-363
ICS C08L093-04; H01H037-76; H01H085-00

CC 76-2 (**Electric** Phenomena)
Section cross-reference(s): 38, 56

ST flux rosin ethylene acrylate copolymer fuse; **electronic** app
protection fuse alloy flux

IT **Electric** fuses
Fluxes
(flux containing rosins and ethylene-acrylate ester copolymers for
flux-attached low-m.p. alloy for **elec.** fuse)

IT Rosin
RL: **DEV (Device component use)**; POF (Polymer in formulation);
PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(flux containing rosins and ethylene-acrylate ester copolymers for
flux-attached low-m.p. alloy for **elec.** fuse)

IT 556-53-6, Propylamine hydrochloride 557-66-4, Ethylamine hydrochloride
660-68-4, Diethylamine hydrochloride 3858-78-4, Butylamine hydrochloride
4905-83-3, Propylamine hydrobromide 7334-96-5, Dipropylamine
hydrobromide 7359-95-7, Tripropylamine hydrobromide
RL: MOA (Modifier or additive use); USES (Uses)
(activator; flux containing rosins and ethylene-acrylate ester copolymers
for flux-attached low-m.p. alloy for **elec.** fuse)

IT 9010-86-0, Ethylene-ethyl acrylate copolymer 25068-58-0,
Ethylene-isobutyl acrylate copolymer **25084-90-6**, tert-Butyl
acrylate-ethylene copolymer 25103-74-6, Ethylene-methyl acrylate
copolymer 25750-84-9, Butyl acrylate-ethylene copolymer 29564-31-6,
Ethylene-propyl acrylate copolymer **32625-99-3**,
Ethylene-isopropyl acrylate copolymer **377079-24-8**, sec-Butyl
acrylate-ethene copolymer
RL: **DEV (Device component use)**; POF (Polymer in formulation);
PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(flux containing rosins and ethylene-acrylate ester copolymers for
flux-attached low-m.p. alloy for **elec.** fuse)

IT 37296-36-9 39352-23-3 58571-95-2 377079-25-9, Indium 30, lead 20,
tin 50
RL: **DEV (Device component use)**; PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(flux containing rosins and ethylene-acrylate ester copolymers for
flux-attached low-m.p. alloy for **elec.** fuse)

IT **25084-90-6**, tert-Butyl acrylate-ethylene copolymer
32625-99-3, Ethylene-isopropyl acrylate copolymer
377079-24-8, sec-Butyl acrylate-ethene copolymer
RL: **DEV (Device component use)**; POF (Polymer in formulation);
PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(flux containing rosins and ethylene-acrylate ester copolymers for
flux-attached low-m.p. alloy for **elec.** fuse)

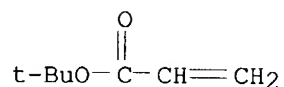
RN 25084-90-6 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with ethene (9CI) (CA
INDEX NAME)

CM 1

CRN 1663-39-4

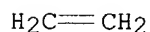
CMF C7 H12 O2



CM 2

CRN 74-85-1

CMF C2 H4



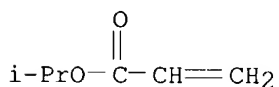
RN 32625-99-3 HCAPLUS

CN 2-Propenoic acid, 1-methylethyl ester, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 689-12-3

CMF C6 H10 O2



CM 2

CRN 74-85-1

CMF C2 H4



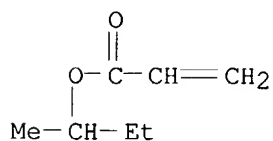
RN 377079-24-8 HCAPLUS

CN 2-Propenoic acid, 1-methylpropyl ester, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 2998-08-5

CMF C7 H12 O2

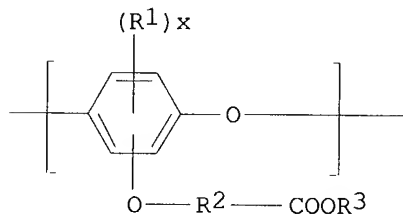


CM 2
CRN 74-85-1
CMF C2 H4



L57 ANSWER 10 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:814263 HCAPLUS
DN 135:364506
TI Positive photopolymer compositions, their pattern formation, and semiconductor **devices** with the patterns
IN Minegishi, Tomonori; Kaji, Makoto; Ueda, Mitsuru; Sasada, Yasuyuki
PA Hitachi Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001312065	A2	20011109	JP 2000-132928	20000427
PRAI	JP 2000-132928		20000427		
GI					



I

AB The pos. photopolymer compns. having excellent sensitivity, high resolu., and heat resistance contain (A) poly(phenylene oxides) having repeating units I (R1 = halogen, C1-9 alkyl; x = 0-3; R2 = divalent substituent; R3 = monovalent organic group which becomes H by acidolysis) and (B) photoacid generators. The compns. are subjected to photolithog. and developed with alkali solns. The patterns are used as surface **protection layers** or interlayer dielects of semiconductor **devices**.
IC ICM G03F007-039
ICS C08K005-00; C08L071-10; H01L021-027; H01L021-312
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pos photopolymer hydroxy protected polyphenylene oxide; semiconductor **device** polyphenylene oxide pos photopolymer; surface **protection layer** polyoxyphenylene pos photopolymer; interlayer dielec polyphenylene oxide pos photopolymer; halogen

substituted carboxylic acid protection polyoxyphenylene

IT Semiconductor **devices**
 (for surface **protection layers** and interlayer dielect. of; pos. photopolymer compns. containing modified polyoxyphenylenes for semiconductor **devices**)

IT **Electric** insulators
 (interlayer dielects.; pos. photopolymer compns. containing modified polyoxyphenylenes for semiconductor **devices**)

IT Photoimaging materials
 (pos. photopolymer compns. containing modified polyoxyphenylenes for semiconductor **devices**)

IT Polyoxyphenylenes
 RL: **DEV (Device component use)**; PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. photopolymer compns. containing modified polyoxyphenylenes for semiconductor **devices**)

IT 488-17-5, 3-Methylcatechol 5292-43-3, tert-Butyl bromoacetate 50745-65-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (HO-protected monomer preparation from; pos. photopolymer compns. containing modified polyoxyphenylenes for semiconductor **devices**)

IT 372192-08-0P
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (monomers; pos. photopolymer compns. containing modified polyoxyphenylenes for semiconductor **devices**)

IT 85342-62-7 121172-98-3, p-Nitrobenzyl-9,10-dimethoxyanthracene 2-sulfonate 137308-86-2, Diphenyliodonium-9,10-dimethoxyanthracene-2-sulfonate
 RL: CAT (Catalyst use); USES (Uses)
 (photoacid generators; pos. photopolymer compns. containing modified polyoxyphenylenes for semiconductor **devices**)

IT **372192-09-1P**
 RL: **DEV (Device component use)**; PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. photopolymer compns. containing modified polyoxyphenylenes for semiconductor **devices**)

IT **372192-09-1P**
 RL: **DEV (Device component use)**; PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. photopolymer compns. containing modified polyoxyphenylenes for semiconductor **devices**)

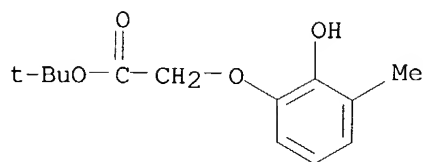
RN 372192-09-1 HCAPLUS

CN Acetic acid, (2-hydroxy-3-methylphenoxy)-, 1,1-dimethylethyl ester, polymer with 2,6-dimethylphenol (9CI) (CA INDEX NAME)

CM 1

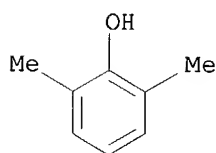
CRN 372192-08-0

CMF C13 H18 O4



CM 2

CRN 576-26-1
CMF C8 H10 O



L57 ANSWER 11 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:796467 HCAPLUS
DN 135:350469

TI **Electrophotographic** photoreceptor having specific surface
protecting layer in process cartridge of
electrophotographic apparatus

IN Hoshizaki, Taketoshi

PA Fuji Xerox Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001305774	A2	20011102	JP 2000-118304	20000419
PRAI	JP 2000-118304		20000419		

AB The title photoreceptor has a light-sensitive **layer** and a
protecting layer on an **electroconductive**
substrate, wherein the **protecting layer** contains
electroconductive particles and a polymer having
charge-transporting blocks and dielec. blocks. The photoreceptor, which
has the aforementioned surface **protecting layer**, shows
the improved wear-resistance and the low residual potential.

IC ICM G03G005-147

ICS G03G005-147

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 38

ST **electrophotog** photoreceptor surface **protecting**
layer process cartridge app

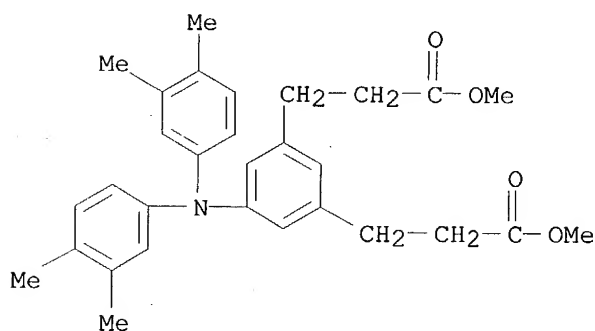
IT **Electrophotographic** apparatus

Electrophotographic photoconductors (photoreceptors)
(**electrophotog.** photoreceptor in process cartridge of

- electrophotog.** apparatus)
- IT 2638-94-0, 4,4'-Azobis[4-cyanovaleric acid] 7719-09-7, Thionyl chloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polymer in **protecting layer** of
electrophotog. photoreceptor)
- IT 17170-81-9DP, reaction product with polyester 371252-71-0DP, reaction
 product with acid chloride derivative 371252-72-1DP, reaction product with
 acid chloride derivative
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (polymer in **protecting layer** of
electrophotog. photoreceptor)
- IT **228395-40-2P** 371252-73-2DP, reaction product with acid chloride
 derivative **371252-74-3P** 371252-75-4P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (polymer in **protecting layer** of
electrophotog. photoreceptor)
- IT **228395-40-2P 371252-74-3P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (polymer in **protecting layer** of
electrophotog. photoreceptor)
- RN 228395-40-2 HCAPLUS
- CN 1,3-Benzenedipropanoic acid, 5-[bis(3,4-dimethylphenyl)amino]-, dimethyl
 ester, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate,
 1,2-ethanediol and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, block
 (9CI) (CA INDEX NAME)

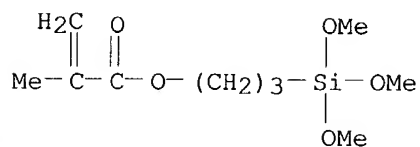
CM 1

CRN 220728-27-8
 CMF C30 H35 N O4



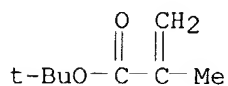
CM 2

CRN 2530-85-0
 CMF C10 H20 O5 Si



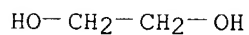
CM 3

CRN 585-07-9
CMF C8 H14 O2



CM 4

CRN 107-21-1
CMF C2 H6 O2

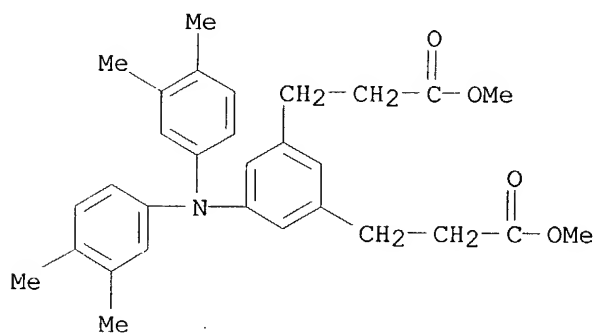


RN 371252-74-3 HCAPLUS

CN 1,3-Benzenedipropionic acid, 5-[bis(3,4-dimethylphenyl)amino]-, dimethyl ester, polymer with 3,3'-dimethyl[1,1'-biphenyl]-4,4'-diamine, 1,1-dimethylethyl 2-methyl-2-propenoate, 1,2-ethanediol and 2-hydroxyethyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

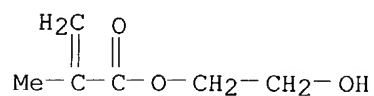
CM 1

CRN 220728-27-8
CMF C30 H35 N O4



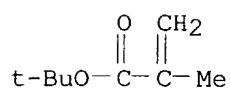
CM 2

CRN 868-77-9
CMF C6 H10 O3



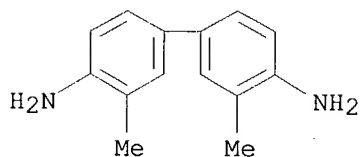
CM 3

CRN 585-07-9
CMF C8 H14 O2



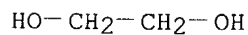
CM 4

CRN 119-93-7
CMF C14 H16 N2



CM 5

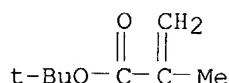
CRN 107-21-1
CMF C2 H6 O2



L57 ANSWER 12 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:673576 HCAPLUS
DN 135:233951
TI Photothermographic material with viscosity-controlled image-forming
layer and protective layer
IN Ishigaki, Kunio
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

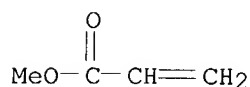
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001249429	A2	20010914	JP 2000-60628	20000306
PRAI	JP 2000-60628		20000306		
AB	The material comprises a support having thereon ≥ 1 image forming layer in which a polymer latex binder is contained and ≥ 1 protective layer in succession, where the ratio of coating solution viscosity of the protective layer to that of the image forming layer is 0.3-1.7. It gives possibility of aqueous coating, preventing streak and unevenness on coated surface.				
IC	ICM G03C001-74				
	ICS G03C001-498; G03C001-76				
CC	74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)				
	Section cross-reference(s): 38				
ST	photothermog material viscosity protective layer ;				
	image forming layer polymer latex photothermog				
IT	Styrene-butadiene rubber, uses				
	RL: DEV (Device component use); USES (Uses)				
	(carboxy-containing, Lacstar 3307B, binder; photothermog. material with viscosity-controlled image-forming layer and protective layer)				
IT	Photothermographic copying				
	(photothermog. material with viscosity-controlled image-forming layer and protective layer)				
IT	9010-88-2, Ethyl acrylate-methyl methacrylate copolymer 9011-87-4, Methyl acrylate-methyl methacrylate copolymer 25135-39-1, Acrylic acid-ethyl acrylate-methyl methacrylate copolymer 26300-51-6, Acrylic acid-butyl acrylate-methyl methacrylate copolymer 27155-22-2, Acrylic acid-methyl acrylate-methyl methacrylate copolymer 27306-39-4, Acrylic acid-butyl acrylate-methyl methacrylate-styrene copolymer 186454-06-8, tert-Butyl methacrylate-methyl acrylate copolymer				
	RL: DEV (Device component use); USES (Uses)				
	(protective layer; photothermog. material with viscosity-controlled image-forming layer and protective layer)				
IT	9003-55-8				
	RL: DEV (Device component use); USES (Uses)				
	(styrene-butadiene rubber, carboxy-containing, Lacstar 3307B, binder; photothermog. material with viscosity-controlled image-forming layer and protective layer)				
IT	186454-06-8, tert-Butyl methacrylate-methyl acrylate copolymer				
	RL: DEV (Device component use); USES (Uses)				
	(protective layer; photothermog. material with viscosity-controlled image-forming layer and protective layer)				
RN	186454-06-8 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with methyl 2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	585-07-9				
CMF	C8 H14 O2				



CM 2

CRN 96-33-3

CMF C4 H6 O2



L57 ANSWER 13 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:98632 HCAPLUS

DN 134:155297

TI Photothermographic material with multiple **protective layers**

IN Ishihara, Makoto

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001033910	A2	20010209	JP 1999-207698	19990722
PRAI	JP 1999-207698		19990722		
OS	MARPAT 134:155297				

AB The material comprises a support having thereon an image recording layer containing a light insensitive Ag salt, a photosensitive Ag halide, a binder, and a nucleating agent and ≥ 2 **protective layers** in which glass transition temperature of the outermost layer is higher than that

of lower layer. It has improved coated surface and layer properties, preventing pinholes and out of focus on printing.

IC ICM G03C001-498

ICS G03C001-76

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST photothermog material multiple **protective layer**;

nucleating agent photothermog material

IT Photothermographic copying

(photothermog. material with multiple **protective layers**)

IT 15166-81-1 189154-58-3 210360-50-2 263553-17-9 297730-68-8

RL: DEV (Device component use); USES (Uses)

(nucleating agent; photothermog. material with multiple **protective layers**)

IT 9003-53-6, Polystyrene 9010-88-2, Ethyl acrylate-methyl methacrylate copolymer 9011-87-4, Methyl acrylate-methyl methacrylate copolymer

25265-15-0, 2-Ethylhexyl acrylate-methyl methacrylate copolymer
 25767-47-9, Butyl acrylate-styrene copolymer 25852-37-3, Butyl
 acrylate-methyl methacrylate copolymer 31347-96-3, Acrylic
 acid-2-ethylhexyl acrylate-2-hydroxyethyl methacrylate-methyl
 methacrylate-styrene copolymer 249294-45-9, Voncoat R3370

324527-55-1, tert-Butyl acrylate-dodecyl acrylate copolymer

RL: DEV (Device component use); USES (Uses)
 (photothermog. material with multiple protective
 layers)

IT 324527-55-1, tert-Butyl acrylate-dodecyl acrylate copolymer

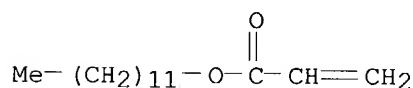
RL: DEV (Device component use); USES (Uses)
 (photothermog. material with multiple protective
 layers)

RN 324527-55-1 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with dodecyl
 2-propenoate (9CI) (CA INDEX NAME)

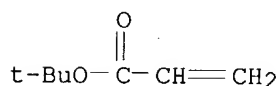
CM 1

CRN 2156-97-0
 CMF C15 H28 O2



CM 2

CRN 1663-39-4
 CMF C7 H12 O2



L57 ANSWER 14 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:46081 HCAPLUS

DN 134:123506

TI Heat-developable image recording material with heat-processed
 protective layer

IN Naoi, Takashi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001013624	A2	20010119	JP 1999-187243	19990701
PRAI	JP 1999-187243		19990701		

AB The material comprises a support having thereon an image forming layer
 containing an organic Ag grain, a reducing agent, and a photosensitive Ag
 halide

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

and ≥ 1 **protective layer** which is heat-processed at temperature $\geq 50^\circ$ and lower than glass transition temperature of the support after drying, in which a binder of the layers is a polymer latex. It showed enough mech. properties and improved dimensional stability, preventing abrasion and pinhole defects and wrinkles on development.

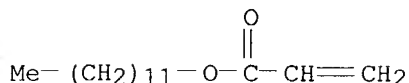
- IC ICM G03C001-498
- ICS G03C001-74; G03C001-76
- CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- IT Latex
 - (binder; heat-developable image recording material with heat-treated **protective layer** containing polymer latex as binder)
- IT Styrene-butadiene rubber, uses
 - RL: DEV (Device component use); USES (Uses)
 - (carboxy-containing; heat-developable image recording material with heat-treated **protective layer** containing polymer latex as binder)
- IT Polyesters, uses
 - RL: DEV (Device component use); USES (Uses)
 - (film, biaxially-oriented, support; heat-developable image recording material with heat-treated **protective layer** containing polymer latex as binder)
- IT Binders
 - (heat-developable image recording material with heat-treated **protective layer** containing polymer latex as binder)
- IT Photographic films
 - (heat-developable; heat-developable image recording material with heat-treated **protective layer** containing polymer latex as binder)
- IT 25038-59-9, Terephthalic acid-ethylene glycol copolymer, uses
 - RL: DEV (Device component use); USES (Uses)
 - (film, biaxially-oriented, support; heat-developable image recording material with heat-treated **protective layer** containing polymer latex as binder)
- IT 79-41-4D, Methacrylic acid, esters, polymers with hydroxyethyl acrylate 818-61-1D, polymers with methacrylate esters 9003-53-6, Polystyrene 9010-88-2, Ethyl acrylate-methyl methacrylate copolymer 9011-87-4, Methyl acrylate-methyl methacrylate copolymer 25265-15-0, 2-Ethylhexyl acrylate-methyl methacrylate copolymer 25767-47-9, Butyl acrylate-styrene copolymer 25852-37-3, Butyl acrylate-methyl methacrylate copolymer 26916-05-2, 2-Ethylhexyl acrylate-hydroxyethyl methacrylate-methyl methacrylate-styrene copolymer 38622-62-7, Acrylic acid-2-ethylhexyl acrylate-hydroxyethyl methacrylate-methyl methacrylate copolymer 147341-79-5, tert-Butyl methacrylate-dodecyl acrylate copolymer
 - RL: DEV (Device component use); USES (Uses)
 - (heat-developable image recording material with heat-treated **protective layer** containing polymer latex as binder)
- IT 9003-55-8
 - RL: DEV (Device component use); USES (Uses)
 - (styrene-butadiene rubber, carboxy-containing; heat-developable image recording material with heat-treated **protective layer** containing polymer latex as binder)
- IT 147341-79-5, tert-Butyl methacrylate-dodecyl acrylate copolymer
 - RL: DEV (Device component use); USES (Uses)
 - (heat-developable image recording material with heat-treated **protective layer** containing polymer latex as binder)
- RN 147341-79-5 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with dodecyl

2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2156-97-0

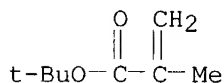
CMF C15 H28 O2



CM 2

CRN 585-07-9

CMF C8 H14 O2



L57 ANSWER 15 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:869529 HCAPLUS

DN 134:49234

TI Image forming material for low energy laser exposure, containing acid-generating compound or substructure released by heat and acid

IN Sakurai, Seiya; Obayashi, Tatsuhiko; Okawa, Atsuhiko

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 45 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000343837	A2	20001212	JP 2000-65238	20000309
PRAI	JP 1999-93087	A	19990331		

OS MARPAT 134:49234

AB The material comprises a support having thereon ≥ 1 image forming layer containing (A) an acid-generating agent W1OP1 (W1 = acid residue represented by W1OH; P1 = substituent released by heat or acid) or substructure by heat and an acid and (B) a compound or substructure causing a change at 360-900 nm absorption region by intramol. or intermol. reaction and ≥ 1 **protective layer**. It showed improved travelling properties and abrasion resistance with enough color development and is especially suitable for an UV lithog. mask.

IC ICM B41M005-30

ICS B41M005-26; B41N001-14; C07C309-73; C07F007-18; C09B069-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 134127-48-3

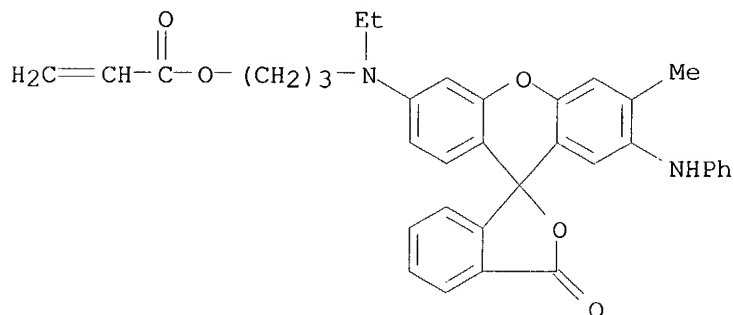
RL: DEV (Device component use); USES (Uses)

(IR absorber; laser heat-mode image forming material containing acid-generating compound)

IT 211308-94-0 312593-94-5 312593-95-6
 RL: DEV (Device component use); USES (Uses)
 (acid generator; laser heat-mode image forming material containing
 acid-generating compound)
 IT 136160-47-9P 169396-64-9P 223106-55-6P 268747-61-1P
 270910-39-9P 270910-40-2P 270910-43-5P 300374-98-5P
 RL: PNU (Preparation, unclassified); PREP (Preparation)
 (acid generator; laser heat-mode image forming material containing
 acid-generating compound)
 IT 223106-55-6P 270910-43-5P 300374-98-5P
 RL: PNU (Preparation, unclassified); PREP (Preparation)
 (acid generator; laser heat-mode image forming material containing
 acid-generating compound)
 RN 223106-55-6 HCAPLUS
 CN Butanoic acid, 2-[[[(4-ethenylphenyl)sulfonyl]oxy]methyl]-2-methyl-3-oxo-,
 1,1-dimethylethyl ester, polymer with 3-[ethyl[6'-methyl-3-oxo-7'-
 (phenylamino)spiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3'-yl]amino]propyl
 2-propenoate (9CI) (CA INDEX NAME)

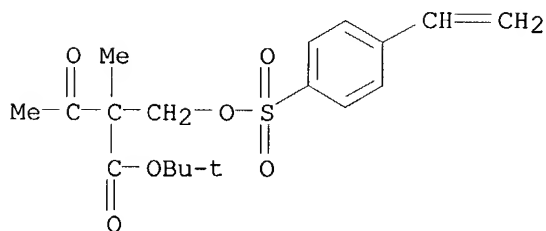
CM 1

CRN 223106-54-5
 CMF C35 H32 N2 O5



CM 2

CRN 220406-43-9
 CMF C18 H24 O6 S



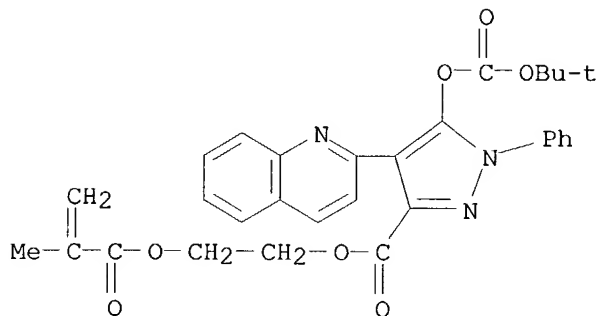
RN 270910-43-5 HCAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 5-[[[(1,1-dimethylethoxy)carbonyl]oxy]-1-
 phenyl-4-(2-quinolinyl)-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester,
 polymer with 1,1-dimethylethyl 2-[[[(4-ethenylphenyl)sulfonyl]oxy]methyl]-

2-methyl-3-oxobutanoate (9CI) (CA INDEX NAME)

CM 1

CRN 270910-42-4

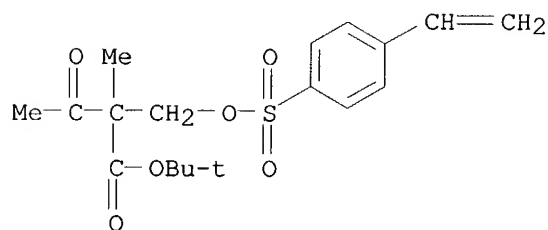
CMF C30 H29 N3 O7



CM 2

CRN 220406-43-9

CMF C18 H24 O6 S



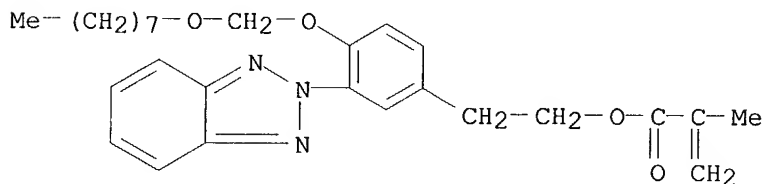
RN 300374-98-5 HCAPLUS

CN Butanoic acid, 2-[[[(4-ethenylphenyl)sulfonyl]oxy]methyl]-2-methyl-3-oxo-, 1,1-dimethylethyl ester, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-[(octyloxy)methoxy]phenyl]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 268747-64-4

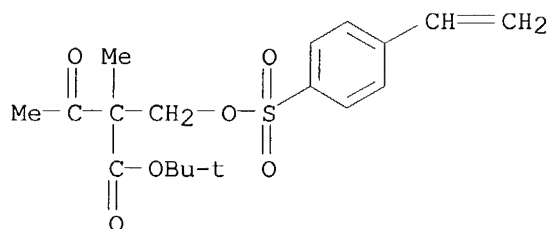
CMF C27 H35 N3 O4



CM 2

CRN 220406-43-9

CMF C18 H24 O6 S



L57 ANSWER 16 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:778558 HCAPLUS
 DN 133:336663
 TI Polarizing liquid crystalline film components for transfer
 IN Nishimura, Ryo
 PA Nisseki Mitsubishi K. K., Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000310715	A2	20001107	JP 1999-118930	19990427
PRAI	JP 1999-118930		19990427		

AB The components comprise a support substrate, a **protective layer**, a cholesteric liquid crystal layer containing regions having diffraction functions, and an adhesive layer. Thus, a transfer element having a hot-melt layer, a cholesteric liquid crystal film formed from a photocurable composition containing methylhydroquinone bis[4-(6-acryloyloxyhexyloxy)benzoate], 4-cyanophenol 4-(6-acryloyloxyhexyloxy)benzoate, and S 811 (chiral dopant liquid crystal) and treated with a diffraction grating film, a **protective layer** from a photocurable composition (a mixture containing Aronic UV 3630, M 240, and M 320), and a poly(phenylene sulfide) substrate was transferred from the substrate to a PVC sheet by hot stamping. The transferred film showed selective reflection and diffracted light.

IC ICM G02B005-30

ICS B32B007-02; B32B027-36; G02B005-18

CC 42-11 (Coatings, Inks, and Related Products)

Section cross-reference(s): 73, 75

IT Coating materials

(UV-absorbing; polarizing liquid crystalline films having **protective layers** for transfer)

IT Coating materials

(abrasion-resistant; polarizing liquid crystalline films having **protective layers** for transfer)

IT Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

- (acrylic, **protective layer**; polarizing liquid crystalline films having **protective layers** for transfer)
- IT Liquid crystals
 - (chiral; polarizing liquid crystalline films having **protective layers** for transfer)
- IT Liquid crystals, polymeric
 - (cholesteric; polarizing liquid crystalline films having **protective layers** for transfer)
- IT Adhesives
 - (hot-melt; polarizing liquid crystalline films having **protective layers** for transfer)
- IT Polyesters, uses
 - RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (liquid-crystalline; polarizing l
- iq. crystalline films having **protective layers** for transfer)
- IT Sheet glass
 - RL: MSC (Miscellaneous)
 - (object of transfer; polarizing liquid crystalline films having **protective layers** for transfer)
- IT Diffraction gratings
 - Laminated plastic films
 - Polarizing films
 - Transfers
 - UV stabilizers
 - (polarizing liquid crystalline films having **protective layers** for transfer)
- IT Polyesters, uses
 - Polythiophenylenes
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (substrate; polarizing liquid crystalline films having **protective layers** for transfer)
- IT 131-53-3, Cyasorb UV 24
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (UV absorber; polarizing liquid crystalline films having **protective layers** for transfer)
- IT 83847-14-7P 125248-71-7P
 - RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 - (liquid crystal component; polarizing liquid crystalline films having **protective layers** for transfer)
- IT 9002-86-2, Poly(vinyl chloride)
 - RL: MSC (Miscellaneous)
 - (object of transfer; polarizing liquid crystalline films having **protective layers** for transfer)
- IT 303054-90-2P 304436-01-9P
 - RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (polarizing liquid crystalline films having **protective layers** for transfer)
- IT 304016-71-5P 304436-02-0P
 - RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (**protective layer**; polarizing liquid crystalline films having **protective layers** for transfer)
- IT 95-71-6, Methylhydroquinone 767-00-0, 4-Cyanophenol 83883-26-5, 4-(6-Acryloyloxyhexyloxy)benzoic acid
 - RL: RCT (Reactant); RACT (Reactant or reagent)

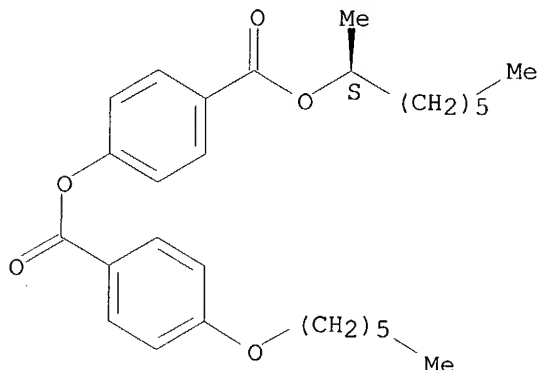
(reactant; polarizing liquid crystalline films having **protective layers** for transfer)
 IT 25038-59-9, Poly(ethylene terephthalate), uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (substrate; polarizing liquid crystalline films having **protective layers** for transfer)
 IT 304436-01-9P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polarizing liquid crystalline films having **protective layers** for transfer)
 RN 304436-01-9 HCAPLUS
 CN Benzoic acid, 4-(hexyloxy)-, 4-[[[(1S)-1-methylheptyl]oxy]carbonyl]phenyl ester, mixt. with 4-cyanophenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate polymer with 2-methyl-1,4-phenylene bis[4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate] (9CI) (CA INDEX NAME)

CM 1

CRN 87321-20-8

CMF C28 H38 O5

Absolute stereochemistry.



CM 2

CRN 304436-00-8

CMF (C39 H44 O10 . C23 H23 N O5)x

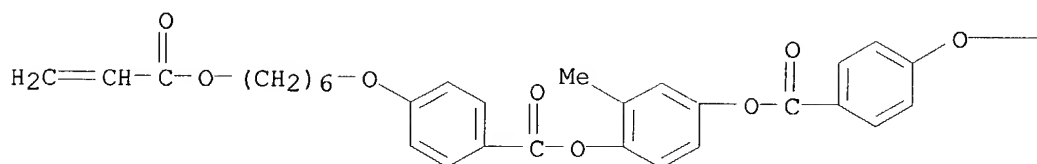
CCI PMS

CM 3

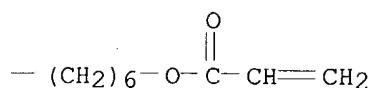
CRN 125248-71-7

CMF C39 H44 O10

PAGE 1-A

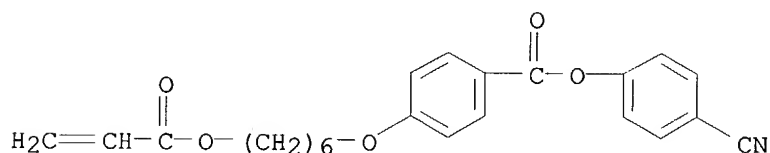


PAGE 1-B



CM 4

CRN 83847-14-7
CMF C23 H23 N O5



L57 ANSWER 17 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:393004 HCAPLUS
DN 133:31874
TI Antireflective agents, films for protecting polarizing panels and the panels
IN Nakai, Hideyuki; Takiyama, Nobuyuki; Kobayashi, Toru; Hasegawa, Mitsuyo
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

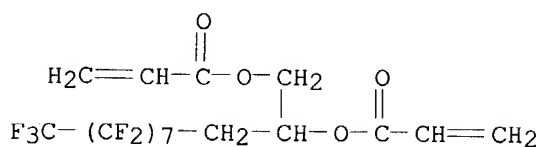
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000159840	A2	20000613	JP 1998-336193	19981126
PRAI	JP 1998-336193		19981126		

AB The agents with good adhesion to transparent substrate surface and resistance to scratching, are obtained from F-containing monomers selected from fluoro(cyclo)alkyl (meth)acrylates, YOOCCH:CR1COOZ [R1 = H, Me; Y, Z = (F-containing) C2-12 alkyl, (F-containing) C4-12 cycloalkyl (provided at least either Y or Z contains F)], CH2C(COOY)CH2COOZ, or/and F-containing esters of 4,5-dicarboxycyclohexene. Thus, coating a solution containing dipentaerythritol

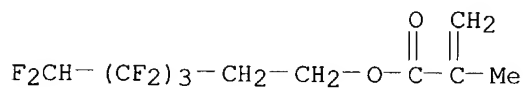
KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

hexaacrylate 60, dipentaerythritol hexaacrylate dimer 20, dipentaerythritol hexaacrylate oligomer (≥ 3) 20, diethoxybenzophenone UV initiator 2, a silicone surfactant 1, Aerosil R 972 (treated fumed silica) 50, MEK 50, AcOEt 50 and i-PrOH 50 parts on the surface of a Konitac 80UVSH (cellulose triacetate) film, irradiating with UV light, coating on top with a solution containing 3,3,4,4,5,5,6,6-octafluorohexyl methacrylate 45, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-heptafluorononylene glycol diacrylate 45, dipentaerythritol hexaacrylate 10, diethoxybenzophenone 0.2, F 177 (F-containing surfactant) 1, cyclohexanone 3500 and i-PrOH 7700 parts, drying and irradiating with UV light gave a coated film with reflective index 1.37, cross-cut adhesion 100/100 and good resistance to scratching.

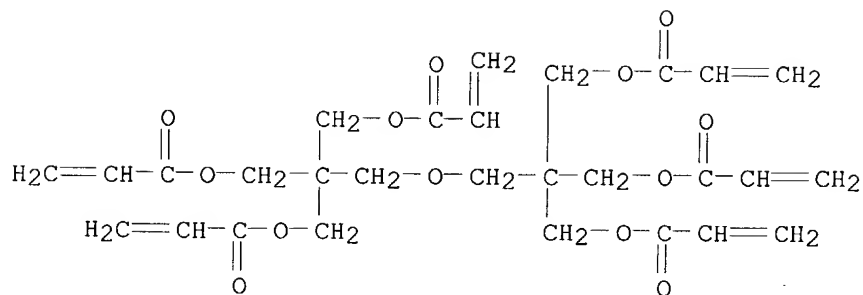
- IC ICM C08F220-24
ICS B32B007-02; B32B027-30; C08F002-48; C08F220-20; C08F222-18;
C08F232-04; G02B001-10; G02B005-30
- CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 76
- IT Fluoropolymers, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(antireflective **coatings**; antireflective agents, films for **protecting** polarizing panels and panels)
- IT 273396-13-7 273396-14-8 273396-16-0
273396-17-1 273396-19-3 273396-20-6
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(antireflective **coatings**; antireflective agents, films for **protecting** polarizing panels and panels)
- IT 29570-58-9D, Dipentaerythritol hexaacrylate, polymers with other polyacrylates 67653-78-5D, Dipentaerythritol hexaacrylate polymer, oligomeric, polymers with other polyacrylates
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(hard **coatings**; antireflective agents, films for **protecting** polarizing panels and panels)
- IT 9012-09-3, Konitac 80UVSH
RL: DEV (Device component use); USES (Uses)
(substrates for polarizing panels; antireflective agents, films for protecting polarizing panels and panels)
- IT 273396-13-7 273396-14-8 273396-16-0
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(antireflective **coatings**; antireflective agents, films for **protecting** polarizing panels and panels)
- RN 273396-13-7 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6-octafluorohexyl ester, polymer with 1-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptafluorononyl)-1,2-ethanediyl di-2-propenoate and 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)
- CM 1
- CRN 147187-58-4
CMF C17 H11 F17 O4



CM 2

CRN 105270-49-3
CMF C10 H10 F8 O2

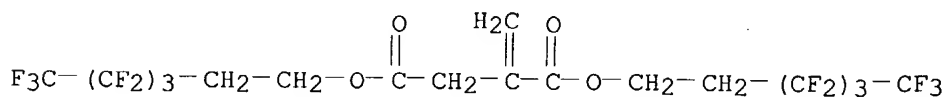
CM 3

CRN 29570-58-9
CMF C28 H34 O13

RN 273396-14-8 HCAPLUS

CN Butanedioic acid, methylene-, bis(3,3,4,4,5,5,6,6,6-nonafluorohexyl) ester, polymer with 1-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptafluorononyl)-1,2-ethanediyl di-2-propenoate and 2-[[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

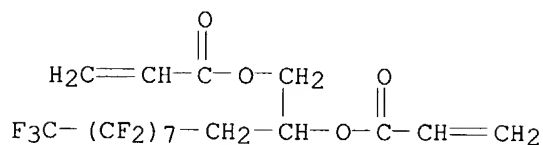
CM 1

CRN 148780-60-3
CMF C17 H12 F18 O4

CM 2

CRN 147187-58-4

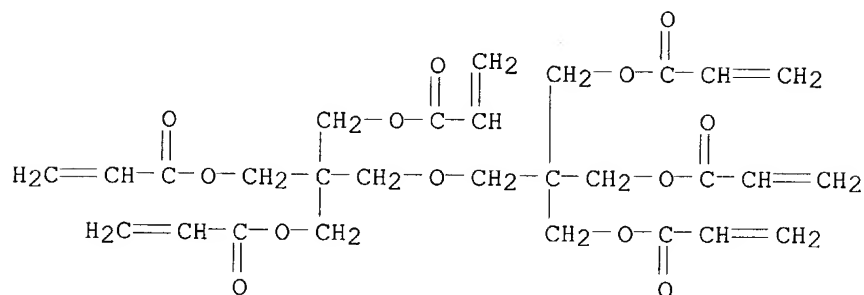
CMF C17 H11 F17 O4



CM 3

CRN 29570-58-9

CMF C28 H34 O13



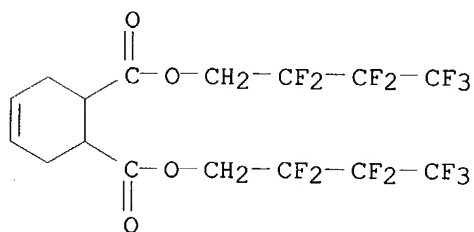
RN 273396-16-0 HCAPLUS

CN 4-Cyclohexene-1,2-dicarboxylic acid, bis(2,2,3,3,4,4,4-heptafluorobutyl) ester, polymer with 1-[2,2,3,3,4,4,5,5,6,6,7,7,8,9,9,9-hexadecafluoro-8-(trifluoromethyl)nonyl]-1,2-ethanediyl di-2-propenoate and 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 273396-15-9

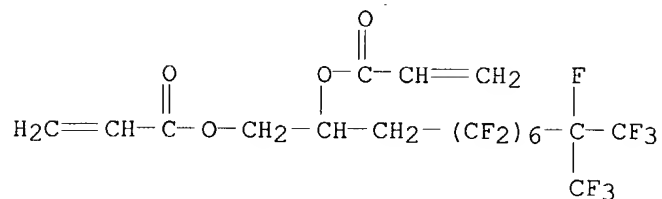
CMF C16 H12 F14 O4



CM 2

CRN 164231-44-1

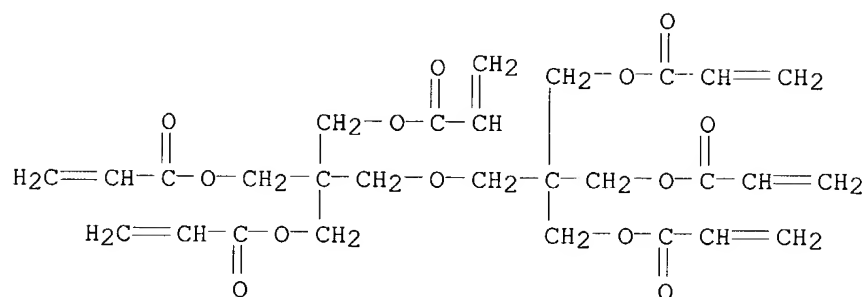
CMF C18 H11 F19 O4



CM 3

CRN 29570-58-9

CMF C28 H34 O13



L57 ANSWER 18 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:62691 HCAPLUS
DN 132:109496
TI Water-thinned core-shell emulsion coating compositions
IN Fukuzumi, Tatsushi; Doi, Yasutaka
PA Mitsubishi Rayon Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF

DT	Patent
LA	Japanese

FAN.CNT 1

PAN.CN1 1

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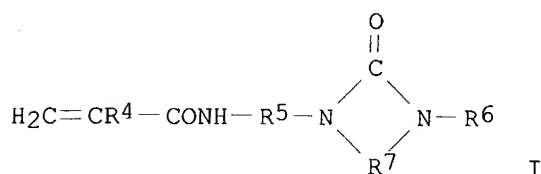
PATE

LIII.

— 222 —

PT ID 2

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PRAI	JP	1998-197874		19980713			
GI							



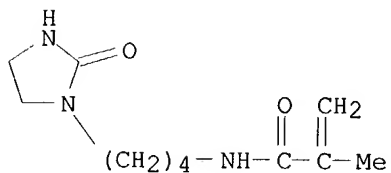
- AB The title compns., having good peelability and useful for temporary protection of automobiles, **electronic devices**, etc., contain core-shell polymers comprising core polymers having theor. Tg (calculated by Fox equation) 20-50°, and shell polymers having theor. Tg lower than that of core polymers. The core-shell polymers are prepared from H2C:CR1CO2R2OR3 (R1 = H, Me; R2 = C1-6 alkylene; R3 = C1-6 alkylene, Ph) 5-40, I (R4 = H, Me; R5 = group containing 1-10 C atoms; R6 = H, group containing 1-6 C atoms; R7 = group containing 1-6 C atoms) 0.1-3, H2C:CR8CO2C2H4R9CO2H (R8 = H, Me; R9 = group containing 2-28 C atoms) 0.1-10, and other monomers 47-94.8%. Thus, an emulsion of a 30:70 core-shell polymer comprising 18:3:6:3 MMA-styrene-Et acrylate (II)-2-methoxyethyl acrylate (III) core polymer (theor. Tg 50°) and 29.75:19.6:16.8:0.35:2.8:0.7 MMA-II-III-diacetone acrylamide-hexahydrophthalic acid 2-hydroxyethyl methacrylate monoester-methacrylamidoethyl ethylene urea shell polymer (theor. Tg 18°) was prepared and neutralized with ammonia to give coatings.
- IC ICM C09D151-00
ICS C08F265-06
- CC 42-10 (Coatings, Inks, and Related Products)
- ST temporary **protection coating** peelability automobile; methacrylamidoethyl ethylene urea copolymer coating; theor glass transition temp coating
- IT Coating materials
(emulsion, water-thinned; water-thinned core-shell emulsion **coatings** with good peelability for temporary **protection** of automobiles)
- IT Automobiles
(water-thinned core-shell emulsion **coatings** with good peelability for temporary **protection** of automobiles)
- IT 255726-02-4P 255726-04-6P 255726-06-8P **255726-08-0P**
255726-10-4P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-thinned core-shell emulsion **coatings** with good peelability for temporary **protection** of automobiles)
- IT **255726-08-0P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-thinned core-shell emulsion **coatings** with good peelability for temporary **protection** of automobiles)
- RN 255726-08-0 HCAPLUS
- CN 1,2-Cyclohexanedicarboxylic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, N-(1,1-dimethyl-3-oxobutyl)-2-propenamide, ethenylbenzene, ethyl 2-propenoate, 2-methoxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-methyl-N-[4-(2-oxo-1-imidazolidinyl)butyl]-2-propenamide, graft, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 255726-07-9
 CMF (C14 H20 O6 . C11 H19 N3 O2 . C9 H15 N O2 . C8 H14 O2 . C8 H8 . C6
 H10 O3 . C5 H8 O2 . C5 H8 O2)x
 CCI PMS

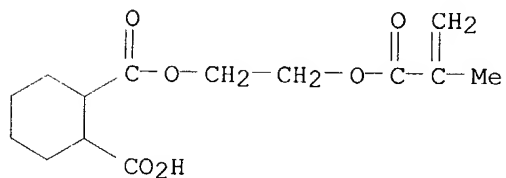
CM 2

CRN 197633-69-5
 CMF C11 H19 N3 O2



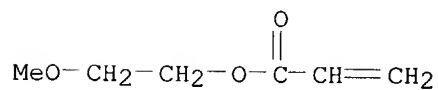
CM 3

CRN 51252-88-1
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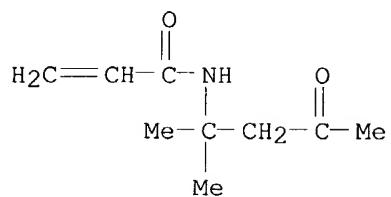
CM 4

CRN 3121-61-7
 CMF C6 H10 O3



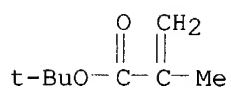
CM 5

CRN 2873-97-4
 CMF C9 H15 N O2



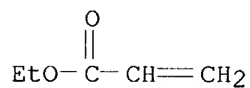
CM 6

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CMF C8 H14 O2



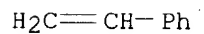
CM 7

CRN 140-88-5
CMF C5 H8 O2



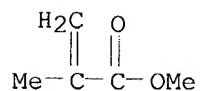
CM 8

CRN 100-42-5
CMF C8 H8



CM 9

CRN 80-62-6
CMF C5 H8 O2

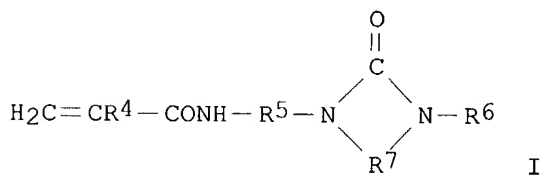


L57 ANSWER 19 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:62690 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

DN 132:109495
 TI Water-thinned emulsion coating compositions
 IN Fukuzumi, Tatsushi; Moriya, Makoto
 PA Mitsubishi Rayon Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000026789	A2	20000125	JP 1998-197873	19980713
PRAI	JP 1998-197873		19980713		
GI					



- AB The title compns., having good peelability and useful for temporary protection of automobiles, **electronic devices**, etc., contain polymers prepared from $\text{H}_2\text{C}:\text{CR}^1\text{CO}_2\text{R}^2\text{OR}^3$ ($\text{R}^1 = \text{H}, \text{Me}$; $\text{R}^2 = \text{C1-6 alkylene}$; $\text{R}^3 = \text{C1-6 alkylene, Ph}$) 5-40, I ($\text{R}^4 = \text{H}, \text{Me}$; $\text{R}^5 = \text{group containing 1-10 C atoms}$; $\text{R}^6 = \text{H, group containing 1-6 C atoms}$; $\text{R}^7 = \text{group containing 1-6 C atoms}$) 0.1-3, $\text{H}_2\text{C}:\text{CR}^8\text{CO}_2\text{C}_2\text{H}_4\text{R}^9\text{CO}_2\text{H}$ ($\text{R}^8 = \text{H, Me}$; $\text{R}^9 = \text{group containing 2-28 C atoms}$) 0.1-10, and other monomers 47-94.8%. Thus, an emulsion of a 18:23:19:35:4:1 MMA-styrene-Et acrylate-2-methoxyethyl acrylate-hexahydrophthalic acid 2-hydroxyethyl methacrylate monoester-methacrylamidoethyl butylene urea copolymer was prepared and neutralized with ammonia to give coatings.
- IC ICM C09D133-06
 ICS C08F220-10
- CC 42-10 (Coatings, Inks, and Related Products)
- ST temporary **protection coating** peelability automobile; methacrylamidoethyl butylene urea copolymer coating
- IT Coating materials
 (emulsion, water-thinned; water-thinned emulsion **coatings** with good peelability for temporary **protection** of automobiles)
- IT Automobiles
 (water-thinned emulsion **coatings** with good peelability for temporary **protection** of automobiles)
- IT 255724-22-2P 255724-23-3P 255724-24-4P **255724-25-5P**
 255724-26-6P 255724-27-7P 255724-28-8P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (water-thinned emulsion **coatings** with good peelability for temporary **protection** of automobiles)
- IT **255724-25-5P**
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water-thinned emulsion **coatings** with good peelability for temporary **protection** of automobiles)

RN 255724-25-5 HCAPLUS

CN 1,2-Cyclohexanedicarboxylic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, N-(1,1-dimethyl-3-oxobutyl)-2-propenamide, ethyl 2-propenoate, hexanedioic acid dihydrazide, 2-methoxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-methyl-N-[2-(2-oxo-1-imidazolidinyl)ethyl]-2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 255835-69-9

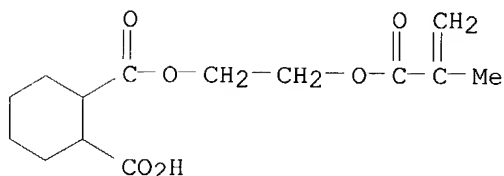
CMF (C14 H20 O6 . C9 H15 N3 O2 . C9 H15 N O2 . C8 H14 O2 . C6 H14 N4 O2 . C6 H10 O3 . C5 H8 O2 . C5 H8 O2)x

CCI PMS

CM 2

CRN 51252-88-1

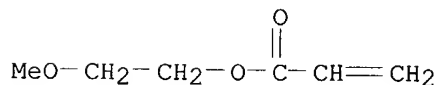
CMF C14 H20 O6



CM 3

CRN 3121-61-7

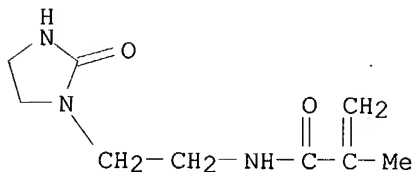
CMF C6 H10 O3



CM 4

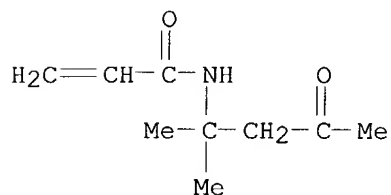
CRN 3089-19-8

CMF C9 H15 N3 O2



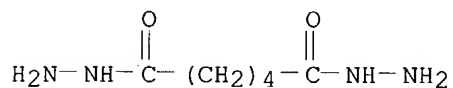
CM 5

CRN 2873-97-4
CMF C9 H15 N O2



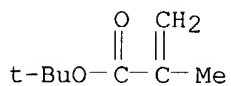
CM 6

CRN 1071-93-8
CMF C6 H14 N4 O2



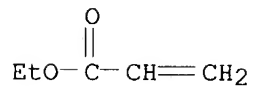
CM 7

CRN 585-07-9
CMF C8 H14 O2



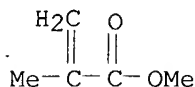
CM 8

CRN 140-88-5
CMF C5 H8 O2



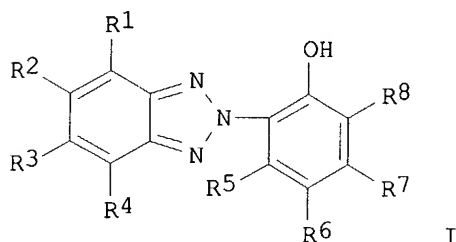
CM 9

CRN 80-62-6
CMF C5 H8 O2



L57 ANSWER 20 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1999:752346 HCAPLUS
 DN 132:7536
 TI Heat-developable black-and-white photographic material with specific
protective coating
 IN Tsuji, Nobuaki
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11327078	A2	19991126	JP 1998-127472	19980511
PRAI	JP 1998-127472		19980511		
OS	MARPAT 132:7536				
GI					



AB The **protective coating** of the heat-developable photog. material comprises either (1) conductive metal oxide and oil, (2) conductive metal oxide and polymer latex, or (3) conductive metal oxide and I (R1-8 = H, halo, alkyl, alkoxy, hydroxy, saturated aliphatic monocarboxylic group). The conductive metal oxide may be SnO2. The heat-developed photog. film shows low surface resistivity and good coating adhesion.

IC ICM G03C001-498
 ICS G03C001-76

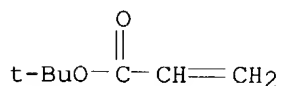
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST heat developable photog film **protective coating**

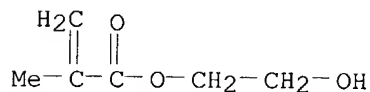
IT Photographic films
 (heat-developable; heat-developable black-and-white photog. material with specific **protective coating**)

IT 18282-10-5, Tin dioxide 23328-53-2 26761-40-0, Diisodecyl phthalate 36437-37-3 **90885-27-1**, Butyl acrylate-tert-butyl acrylate-2-hydroxyethyl methacrylate-styrene copolymer 161717-07-3, Cyclohexyl methacrylate-isononyl acrylate-glycidyl methacrylate copolymer
 RL: **DEV (Device component use)**; **USES (Uses)**
 (in **protective coating** of heat-developable photog.

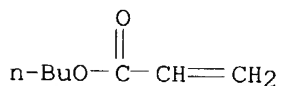
film)
 IT 90885-27-1, Butyl acrylate-tert-butyl acrylate-2-hydroxyethyl
 methacrylate-styrene copolymer
 RL: DEV (Device component use); USES (Uses)
 (in protective coating of heat-developable photog.
 film)
 RN 90885-27-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl
 2-propenoate, 1,1-dimethylethyl 2-propenoate and ethenylbenzene (9CI) (CA
 INDEX NAME)
 CM 1
 CRN 1663-39-4
 CMF C7 H12 O2



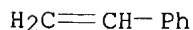
CM 2
 CRN 868-77-9
 CMF C6 H10 O3



CM 3
 CRN 141-32-2
 CMF C7 H12 O2



CM 4
 CRN 100-42-5
 CMF C8 H8



L57 ANSWER 21 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1999:658497 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

DN 131:279226
 TI Photographic materials containing dihydroxybenzene derivatives and photographic processing
 IN Yamamoto, Seiichi
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11282110	A2	19991015	JP 1998-102130	19980330
PRAI	JP 1998-102130		19980330		

AB In the photog. materials having ≥ 1 Ag halide emulsion **layer** and ≥ 1 **protective layer**, (a) the emulsion is chemical sensitized with Se compds., (b) average particle size of the Ag halide grains is 0.30-0.45 μm , (c) ≥ 1 selected from the emulsion layers and nonphotosensitive hydrophilic colloid layers contains 40-600 mg/m² dihydroxybenzene derivs., and (d) gelatin content of the **protective layer** is 0.2-0.5 g/m². Acidic polymers or polymer latex having active methylene group may be added to ≥ 1 selected from emulsion layers and hydrophilic colloid layer to lower the occurrence of pressure marks. Also claimed is processing method for the photog. materials using an automatic developing machine with total processing time 15-40 s. The photog. materials show high sensitivity, high contrast, and pressure resistance even in high-intensity exposure.

IC ICM G03C001-06
 ICS G03C001-035; G03C001-04; G03C001-09; G03C001-76; G03C005-26; G03C005-31

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Polymers, uses
 RL: **DEV (Device component use)**; MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (acidic; photog. materials containing dihydroxybenzene derivs. and optionally acidic polymers or polymer latex with high pressure resistance suitable for rapid processing)

IT 183731-09-1, 2-Acetoacetoxyethyl methacrylate-styrene graft copolymer **245765-97-3**
 RL: **DEV (Device component use)**; MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (core-shell, latex; photog. materials containing dihydroxybenzene derivs. and optionally acidic polymers or polymer latex with high pressure resistance suitable for rapid processing)

IT 123-31-9, 1,4-Benzenediol, uses 9003-01-4, Poly(acrylic acid) 35429-75-5, Acrylic acid-ethylene glycol dimethacrylate copolymer
 RL: **DEV (Device component use)**; MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (photog. materials containing dihydroxybenzene derivs. and optionally acidic polymers or polymer latex with high pressure resistance suitable for rapid processing)

IT **245765-97-3**
 RL: **DEV (Device component use)**; MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (core-shell, latex; photog. materials containing dihydroxybenzene derivs. and optionally acidic polymers or polymer latex with high pressure resistance suitable for rapid processing)

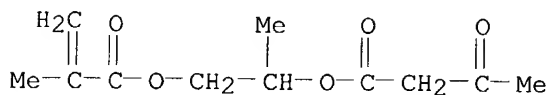
RN 245765-97-3 HCAPLUS

CN Butanoic acid, 3-oxo-, 1-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with ethenylbenzene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 86713-96-4

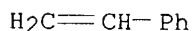
CMF C11 H16 O5



CM 2

CRN 100-42-5

CMF C8 H8



L57 ANSWER 22 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:394799 HCAPLUS

DN 131:65869

TI **Electrophotographic** photoreceptor having charge-transporting material containing crosslinked three-dimensional copolymer, its manufacture, and **electrophotographic** apparatus

IN Hoshizaki, Taketoshi; Yamaguchi, Yasuhiro; Taho, Fumiaki

PA Fuji Xerox Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11167217	A2	19990622	JP 1997-332810	19971203
PRAI	JP 1997-332810		19971203		

AB The photoreceptor comprises an **elec.** conductive support having thereon at least a photosensitive layer containing a charge-generating material and a charge-transporting material containing at least a crosslinked 3-dimensional copolymer with an **elec.** insulating segment and a charge-transporting segment having C atom in the main chain, in which 2 segments are separated. The charge-transporting layer is overcoated with a photosensitive layer, the charge-generating layer, a charge-transporting layer, or a protective layer. The photoreceptor involved in the apparatus is manufactured by the following steps: (1) applying a solution containing a block copolymer or a graft copolymer comprising the above 2 segments having a crosslinkable functional group, (2) crosslinking the copolymer to form 3-dimensional structure simultaneously or after coating the solution, and (3) forming an upper layer in succession by wet coating. The photoreceptor shows improved charge transporting ability and the laminated multilayers can be formed without trouble, e.g.,

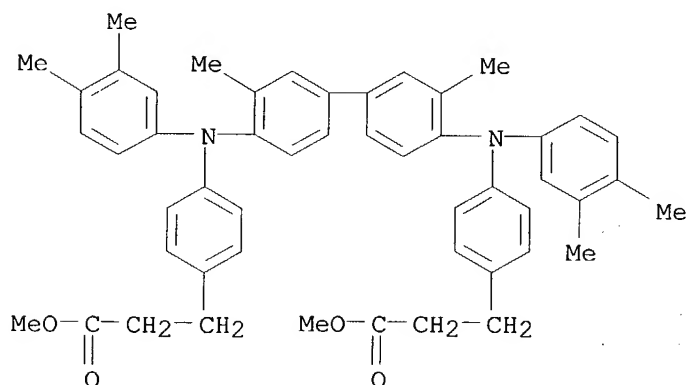
- diffusion of the components, cracking on the bottom layer, etc.
- IC ICM G03G005-07
ICS G03G005-05; G03G005-06
- CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
- ST **electrophotog** photoreceptor charge transporting material;
crosslinked three dimensional copolymer charge transporting; **elec**
insulating segment charge transporting copolymer
- IT Polymers, reactions
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(block, intermediates; **electrophotog.** photoconductor
involving charge-transporting crosslinked three-dimensional copolymer
layer)
- IT Crosslinking
Electrophotographic apparatus
Electrophotographic photoconductors (photoreceptors)
(**electrophotog.** photoconductor involving charge-transporting
crosslinked three-dimensional copolymer layer)
- IT Polymers, reactions
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(graft, intermediates; **electrophotog.** photoconductor
involving charge-transporting crosslinked three-dimensional copolymer
layer)
- IT **Electric** insulators
(segments; **electrophotog.** photoconductor involving
charge-transporting crosslinked three-dimensional copolymer involving)
- IT Polymerization
(three-dimensional; **electrophotog.** photoconductor involving
charge-transporting crosslinked three-dimensional copolymer layer)
- IT 19717-79-4, Chlorogallium phthalocyanine
RL: TEM (Technical or engineered material use); USES (Uses)
(charge-generating; **electrophotog.** photoconductor involving
charge-transporting crosslinked three-dimensional copolymer layer)
- IT **228395-41-3P**
RL: DEV (Device component use); IMF (Industrial manufacture);
TEM (Technical or engineered material use); PREP (Preparation); USES
(Uses)
(crosslinked; **electrophotog.** photoconductor involving
charge-transporting crosslinked three-dimensional copolymer layer)
- IT 2372-21-6 4035-89-6
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents; **electrophotog.** photoconductor involving
charge-transporting crosslinked three-dimensional copolymer layer)
- IT **228395-40-2P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(**electrophotog.** photoconductor involving charge-transporting
crosslinked three-dimensional copolymer layer)
- IT 2638-94-0, 4,4'-Azobis(4-cyanovaleric acid)
RL: RCT (Reactant); RACT (Reactant or reagent)
(**electrophotog.** photoconductor involving charge-transporting
crosslinked three-dimensional copolymer layer)
- IT 7719-09-7, Thionyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(for agent for preparation of block copolymer; **electrophotog.**
photoconductor involving charge-transporting crosslinked

three-dimensional copolymer layer)
 IT 17170-81-9P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (for preparation of block copolymer; **electrophotog.** photoconductor
 involving charge-transporting crosslinked three-dimensional copolymer
 layer)
 IT 210985-48-1P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (intermediates; **electrophotog.** photoconductor involving
 charge-transporting crosslinked three-dimensional copolymer layer)
 IT 228395-41-3P
 RL: **DEV (Device component use)**; IMF (Industrial manufacture);
 TEM (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (crosslinked; **electrophotog.** photoconductor involving
 charge-transporting crosslinked three-dimensional copolymer layer)
 RN 228395-41-3 HCAPLUS
 CN Benzenepropanoic acid, 4,4'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-
 diyl)bis[(3,4-dimethylphenyl)imino]]bis-, dimethyl ester, polymer with
 1,1-dimethylethyl 2-methyl-2-propenoate and 1,2-ethanediol (9CI) (CA
 INDEX NAME)

CM 1

CRN 174406-10-1

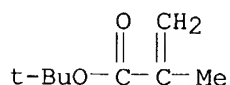
CMF C50 H52 N2 O4



CM 2

CRN 585-07-9

CMF C8 H14 O2



CM 3

CRN 107-21-1
CMF C2 H6 O2

HO-CH₂-CH₂-OH

IT 228395-40-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(**electrophotog.** photoconductor involving charge-transporting crosslinked three-dimensional copolymer layer)

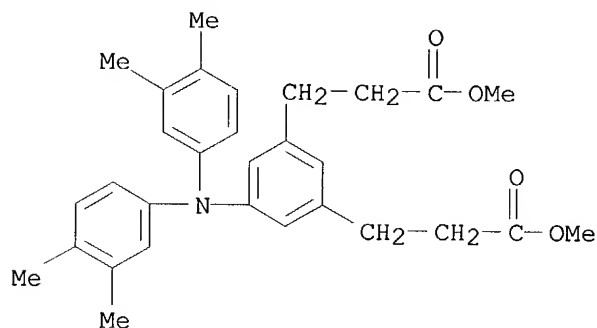
RN 228395-40-2 HCAPLUS

CN 1,3-Benzenedipropanoic acid, 5-[bis(3,4-dimethylphenyl)amino]-, dimethyl ester, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, 1,2-ethanediol and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 220728-27-8

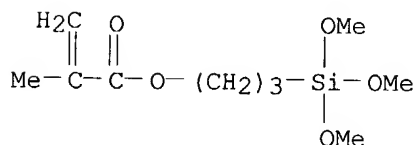
CMF C30 H35 N O4



CM 2

CRN 2530-85-0

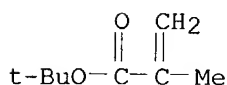
CMF C10 H20 O5 Si



CM 3

CRN 585-07-9

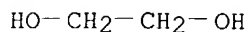
CMF C8 H14 O2



CM 4

CRN 107-21-1

CMF C2 H6 O2



IT 210985-48-1P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(intermediates; **electrophotog.** photoconductor involving charge-transporting crosslinked three-dimensional copolymer layer)

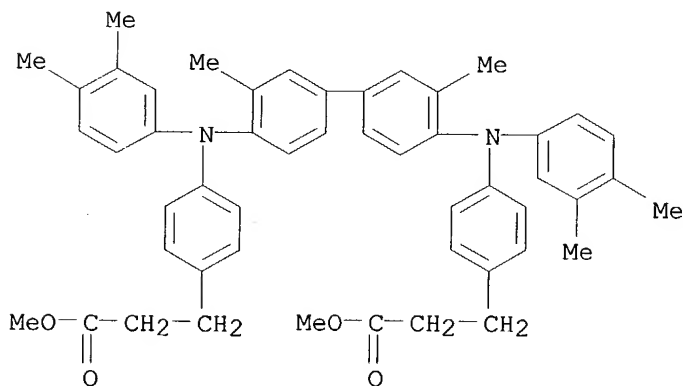
RN 210985-48-1 HCAPLUS

CN Benzenepropanoic acid, 4,4'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[(3,4-dimethylphenyl)imino]]bis-, dimethyl ester, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, 1,2-ethanediol and 2-hydroxyethyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 174406-10-1

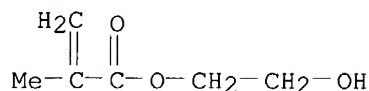
CMF C50 H52 N2 O4



CM 2

CRN 868-77-9

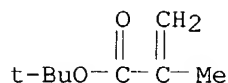
CMF C6 H10 O3



CM 3

CRN 585-07-9

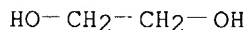
CMF C8 H14 O2



CM 4

CRN 107-21-1

CMF C2 H6 O2



L57 ANSWER 23 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:48376 HCAPLUS

DN 130:140582

TI Method for forming **electrostatic** charge dissipatable polymer films

IN Angelopoulos, Marie; Chen, Kuan-Yung R.; Reedy, Robert Kenneth; Morrow, Wayne Martin

PA International Business Machines Corp., USA

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11012373	A2	19990119	JP 1998-113874	19980423
	JP 3254420	B2	20020204		
PRAI	US 1997-842311	A	19970424		

AB The films which are useful for nondestructive SEM anal. of resists and **electron-beam lithog.**, as **electrostatic** discharge **protection layers for electronic devices**, etc., are formed by coating a polymer bearing ionizable groups on a surface, ionizing the coated film with a chemical, exposing the surface to **elec.** beams or **electrostatic** charge, and ionizing with a 2nd chemical to return back to the non-ionized state. Claimed polymers are novolak, polyhydroxystyrene or its copolymers with acrylate or methacrylate, etc. Thus, exposing a 2- μm DQN (diazonaphthoquinone novolak) film to light and developing with tetramethylammonium hydroxide gave resist images which showed image distortion by **electrostatic** charge during testing with AMRAY

low-voltage SEM (2kV). Covering the images with a 5% polyaniline-polystyrenesulfonic acid layer could reduce the distortion on uncovered sites, while further dipping the images in a 0.19N KOH solution for 30 s and drying showed disappearance of charged areas. Dipping the images in a 0.20N H2SO4 and washing gave resist of original nonionized state.

- IC ICM C08J007-00
- ICS C08J007-00; C08J007-14; H01L021-027; H05F001-00; H05F001-02;
C08L023-04; C08L023-10; C08L025-00; C08L027-06; C08L033-04;
C08L049-00; C08L055-02; C08L061-06; C08L063-00; C08L065-00;
C08L067-02; C08L069-00; C08L079-00; C08L079-08
- CC 42-10 (Coatings, Inks, and Related Products)
- ST **electrostatic** charge dissipation polymer film;
polyhydroxystyrene film charge dissipation; ionization
electrostatic charge dissipation polymer film; photoresist
electrostatic dissipation polymer film; photolithog
electrostatic dissipation polymer film
- IT Conducting polymers
Electrostatic charge
Photoresists
Printed circuit boards
Semiconductor **devices**
(method for forming **elec.** charge dissipatable polymer films
and their use)
- IT Polyanilines
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(method for forming **elec.** charge dissipatable polymer films
and their use)
- IT Phenolic resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(novolak, photoresists; method for forming **elec.** charge
dissipatable polymer films and their use)
- IT 53208-22-3, Diazonaphthoquinone
RL: MOA (Modifier or additive use); USES (Uses)
(method for forming **elec.** charge dissipatable polymer films
and their use)
- IT 1310-58-3, Potassium hydroxide, uses 7664-93-9, Sulfuric acid, uses
RL: NUU (Other use, unclassified); USES (Uses)
(method for forming **elec.** charge dissipatable polymer films
and their use)
- IT 25233-30-1, Polyaniline 50851-57-5, Poly(styrenesulfonic acid)
59269-51-1, Poly(hydroxystyrene) **161982-96-3**, Tert-Butyl
methacrylate-hydroxystyrene copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(method for forming **elec.** charge dissipatable polymer films
and their use)
- IT 37282-06-7, Cresol-phenol copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(photoresists; method for forming **elec.** charge dissipatable
polymer films and their use)
- IT **161982-96-3**, Tert-Butyl methacrylate-hydroxystyrene copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(method for forming **elec.** charge dissipatable polymer films
and their use)
- RN 161982-96-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 31257-96-2

CMF C8 H8 O

CCI IDS



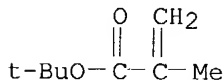
D1-OH

D1-CH=CH₂

CM 2

CRN 585-07-9

CMF C8 H14 O2



L57 ANSWER 24 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:564141 HCAPLUS

DN 129:182065

TI Laminatable backing substrates containing paper desizing agents for simulated photographic-quality prints

IN Malhotra, Shadi L.

PA Xerox Corp., USA

SO U.S., 24 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5795696	A	19980818	US 1996-720656	19961002
PRAI	US 1996-720656		19961002		

AB Disclosed is a method of creating simulated photog.-quality prints using non-photog. imaging, said method comprising (a) providing a coated transparent substrate having a wrong reading toner image formed thereon using a non-photog. imaging process, (b) providing one surface of a backing substrate with a first coating comprising a polymeric adhesive binder having a glass transition temperature less than 55°, an antistatic agent, a lightfastness-inducing agent, and an optional filler, (c)

providing said one surface of said backing substrate with a second coating in contact with said first coating wherein said second coating comprises a hydrophilic polymer having a m.p. of greater than 50°, and a paper desizing agent material having a m.p. of less than 75°, (d) providing a **coating** on another surface of said

protective member opposite said one surface which is luminescent, antistatic, scuff resistant, and lightfast, and (e) adhering said substrates to each other by the application of heat and pressure.

IC ICM G03G013-16

NCL 430124000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotography**

Ink-jet printing

Photoimaging

(laminatable backing substrates containing paper desizing agents for simulated photog.-quality print preparation by)

IT 88-24-4, 2,2'-Methylenebis(6-tert-butyl-4-ethylphenol) 88-27-7, 2,6-Di-tert-butyl-4-(dimethylaminomethyl)phenol 112-80-1D, 9-Octadecenoic acid (9Z)-, N-hydroxyethylimidazoline edrivs., uses 119-47-1, 2,2'-Methylenebis(6-tert-butyl-4-methylphenol) 120-40-1, Lauric diethanolamide 122-32-7, Glyceryl trioleate 123-28-4, Didodecyl 3,3'-thiodipropionate 142-78-9, Lauric monoethanolamide 471-34-1, Calcium carbonate, uses 577-11-7, Sodium dioctyl sulfosuccinate 693-36-7, Dioctadecyl 3,3'-thiodipropionate 695-10-3D, coco and oleic and tall oil derivs. 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconium oxide, uses 1314-98-3, Zinc sulfide, uses 1338-39-2, Sorbitan monolaurate 1338-43-8, Sorbitan monooleate 1344-28-1D, Alumina, hydrated 1709-70-2, 1,3,5-Trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene 1843-05-6 4229-35-0 7631-86-9, Silica, uses 7727-43-7, Barium sulfate 7789-75-5, Calcium fluoride, uses 9002-88-4 9002-92-0, Lauryl alcohol ethoxylate 9003-08-1, Formaldehyde-melamine copolymer 9003-09-2, Poly(methyl vinyl ether) 9003-11-6, Ethylene oxide-propylene oxide copolymer 9003-17-2, Polybutadiene 9003-17-2D, Polybutadiene, dicarboxy-terminated 9003-17-2D, Polybutadiene, phenyl-terminated 9003-18-3, Acrylonitrile-butadiene copolymer 9003-20-7, Poly(vinyl acetate) 9003-21-8, Poly(methyl acrylate) 9003-27-4 9003-28-5, Poly(1-butene) 9003-31-0, Polyisoprene 9003-32-1, Poly(ethyl acrylate) 9003-42-3, Poly(ethyl methacrylate) 9003-44-5, Poly(isobutyl vinyl ether) 9003-47-8, Poly(vinylpyridine) 9003-49-0, Poly(butyl acrylate) 9003-53-6, Polystyrene 9003-54-7, Acrylonitrile-styrene copolymer 9003-55-8, Butadiene-styrene copolymer 9003-56-9, Acrylonitrile-butadiene-styrene copolymer 9003-63-8, Poly(butyl methacrylate) 9003-77-4, Poly(2-ethylhexyl acrylate) 9003-95-6, Poly(vinyl stearate) 9004-36-8, Cellulose acetate butyrate 9004-38-0, Cellulose acetate hydrogen phthalate 9004-41-5, Cyanoethylated cellulose 9004-48-2, Cellulose propionate 9004-57-3, Ethylcellulose 9004-74-4 9004-81-3, Poly(ethylene glycol) monolaurate 9004-96-0, Poly(ethylene glycol) monooleate 9004-98-2 9005-02-1, Poly(ethylene glycol) dilaurate 9005-07-6, Poly(ethylene glycol) dioleate 9005-64-5, Poly(oxyethylene) sorbitan monolaurate 9005-65-6, Poly(oxyethylene) sorbitan monooleate 9005-70-3, Poly(oxyethylene) sorbitan trioleate 9006-26-2, Maleic anhydride-ethylene copolymer 9010-79-1, Ethylene-propylene copolymer 9010-85-9, Isobutylene-isoprene copolymer 9010-86-0, Ethylene-ethyl acrylate copolymer 9011-05-6, Formaldehyde-urea copolymer 9011-05-6D, Formaldehyde-urea copolymer, alkylated 9011-06-7, Vinyl chloride-vinylidene chloride copolymer 9011-14-7, Poly(methyl methacrylate) 9011-16-9, Maleic anhydride-methyl vinyl ether copolymer 9011-53-4, Butyl methacrylate-isobutyl

methacrylate copolymer 9016-45-9, Nonyl phenol ethoxylate 9017-21-4, Poly(vinyltoluene) 9019-70-9, Styrene-vinylpyridine copolymer 9022-52-0, Poly(chlorostyrene) 9036-19-5, Octyl phenol ethoxylate 9036-63-9, Poly(isooctyl acrylate) 9050-31-1, Hydroxypropylmethyl cellulose phthalate 9053-30-9, Poly(tert-butylstyrene) 10101-39-0 10595-72-9, Ditridecyl 3,3'-thiodipropionate 13463-67-7, Titanium dioxide, uses 14995-49-4 16432-81-8 16545-54-3 24936-41-2, Poly(4-methylstyrene) 24936-97-8, Poly(1,4-butylene adipate) 24937-05-1, Poly(ethylene adipate) 24937-78-8, Ethylene-vinyl acetate copolymer 24938-37-2, Poly(ethylene adipate) 24938-67-8, Poly(2,6-dimethyl p-phenylene oxide) 24969-10-6, Epichlorohydrin-ethylene oxide copolymer 24979-82-6, Poly(propyl acrylate) 24991-55-7, Poly(ethylene glycol dimethyl ether) 25014-31-7, Poly(α -methylstyrene) 25035-78-3, Poly(diallyl isophthalate) 25035-84-1, Poly(vinyl propionate) 25036-21-9, Poly(benzyl acrylate) 25037-78-9, Ethylene-vinyl chloride copolymer 25053-15-0, Poly(diallyl phthalate) 25086-48-0, Vinyl acetate-vinyl alcohol-vinyl chloride copolymer 25087-17-6, Poly(hexyl methacrylate) 25103-87-1, Poly(1,4-butylene adipate) 25119-62-4, Allyl alcohol-styrene copolymer 25153-40-6, Maleic acid-methyl vinyl ether copolymer 25189-01-9, Poly(phenyl methacrylate) 25213-24-5, Vinyl acetate-vinyl alcohol copolymer 25213-39-2, Butyl methacrylate-styrene copolymer **25232-27-3**, Poly(tert-butyl acrylate) 25249-16-5, Poly(2-hydroxyethyl methacrylate) 25266-02-8, Maleic anhydride-1-octadecene copolymer 25266-13-1, Poly(octyl acrylate) 25322-68-3 25322-69-4 25496-72-4, Glyceryl monooleate 25569-53-3, Poly(ethylene succinate) 25587-82-0, Poly(2,4,6-tribromostyrene) 25609-74-9, Poly(propyl methacrylate) 25637-84-7, Glyceryl dioleate 25639-21-8, Poly(octadecyl methacrylate) 25667-11-2, Poly(ethylene succinate) 25719-51-1, Poly(2-ethylhexyl methacrylate) 25719-52-2, Poly(lauryl methacrylate) 25721-76-0, Poly(ethylene glycol dimethacrylate) 25852-47-5 25852-49-7, Poly(propylene glycol dimethacrylate) 25986-77-0, Poly(octadecyl acrylate) 26022-14-0, Poly(2-hydroxyethyl acrylate) **26124-32-3**, Poly(isopropyl acrylate) 26246-92-4, Poly(lauryl acrylate) 26264-05-1, Isopropylamine dodecylbenzenesulfonate 26264-06-2, Calcium dodecylbenzenesulfonate 26266-58-0, Sorbitan trioleate 26403-72-5, Poly(ethylene glycol diglycidyl ether) 26570-48-9 26715-88-8, Poly(vinyl pivalate) 26716-20-1, Poly(tert-butylaminoethyl methacrylate) 26760-99-6, Poly(ethylene azelate) 26762-07-2, Poly(ethylene azelate) 27103-47-5, Poly(hexyl acrylate) 27458-65-7, Poly(cyclohexyl acrylate) 27516-89-8 28158-21-6, Poly(trimethylene succinate) 28265-35-2, Butadiene-maleic acid copolymer 28406-56-6, Poly(2-vinylnaphthalene) 28628-64-0, Poly(2-methoxyethyl acrylate) 28725-67-9, Poly(trimethylene succinate) 28725-68-0 29320-53-4, Poly(decyl methacrylate) 29500-86-5, Poly(decyl acrylate) 29963-76-6, Poly[2-(4-benzoyl-3-hydroxyphenoxy)ethyl acrylate] 32628-06-1 36221-42-8, Poly(trimethylene adipate) 36568-42-0, Poly(trimethylene adipate) 37200-12-7, Poly(isodecyl methacrylate) 39350-27-1, Poly(bromostyrene) 40601-76-1 52234-59-0, Poly(trimethylene glutarate) 52256-48-1, Poly(trimethylene glutarate) 52985-34-9, Polychloroisoprene 53761-76-5, Butyl methacrylate-4-vinylpyridine copolymer 54841-40-6, Poly(isodecyl acrylate) 62501-03-5, Poly(hydroxypropyl acrylate) 66987-22-2, Poly(vinyl neodecanoate) 67845-93-6, Hexadecyl 3,5-di-tert-butyl-4-hydroxybenzoate 71599-31-0, Poly(methoxystyrene) 72779-48-7, Hydroxyethylcellulose methacrylate 79720-19-7 82451-48-7 91313-01-8 93792-59-7, Hydroxypropylmethyl cellulose succinate 106917-30-0 106917-31-1 111483-45-5, Hydroxyethylcellulose acrylate 122269-49-2, Ethylene oxide-isoprene block copolymer 145332-37-2, Ethylene oxide-2-hydroxyethyl methacrylate block copolymer 201798-70-1,

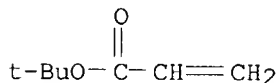
Ethylene oxide-hydroxypropyl methacrylate block copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (laminatable backing substrates for simulated photog.-quality print
 preparation containing)

IT 25232-27-3, Poly(tert-butyl acrylate) 26124-32-3,
 Poly(isopropyl acrylate)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (laminatable backing substrates for simulated photog.-quality print
 preparation containing)
 RN 25232-27-3 HCAPLUS
 CN 2-Propenoic acid, 1,1-dimethylethyl ester, homopolymer (9CI) (CA INDEX
 NAME)

CM 1

CRN 1663-39-4

CMF C7 H12 O2

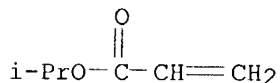


RN 26124-32-3 HCAPLUS
 CN 2-Propenoic acid, 1-methylethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 689-12-3

CMF C6 H10 O2



RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 25 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1997:769238 HCAPLUS
 DN 128:82102
 TI Method for processing silver halide photographic material utilizing
 hydroquinone-free developer
 IN Sasaoka, Senzo
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 54 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09311394	A2	19971202	JP 1996-126135	19960521
PRAI	JP 1996-126135		19960521		
AB	Claimed method for processing photog. material utilizes a developer solution not containing dihydroxybenzene, and is applied to the photog. material having				

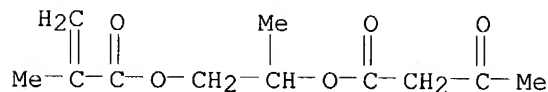
a supported Ag halide emulsion layer characterized by an incorporated polymer latex with a core/shell structure in which the shell layer consists of recurring monomer unit with unsatd. active methylene group. The developer solution contains no hydroquinone and maintains the developing activity by ascorbic acid with the super-additive combination, and provides the photog. image with enhanced contrast. Thus, the polymer latex consisting of butadiene/styrene (37/63) copolymer as core material and styrene/2-aceto-acetoxymethacrylate (84/16) copolymer as shell layer (core/shell ratio = 50/50) was added to the 2nd (inner) **protective layer** of a hydrazine-containing Ag(Br30Cl70) photog. film. It was developed by a solution containing N-methyl-p-aminophenol and erythorbic acid as the developing agents.

IC ICM G03C001-04
ICS G03C001-06; G03C005-26; G03C005-29; G03C005-30; G03C005-31
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 9003-55-8, Butadiene-styrene copolymer 26747-39-7, Butyl acrylate-ethylene glycol dimethacrylate copolymer 61116-48-1, Divinylbenzene-2-ethylhexyl acrylate copolymer
RL: **DEV (Device component use); USES (Uses)**
(core; processing photog. material containing core-shell polymer latex utilizing hydroquinone-free developer)
IT 158015-06-6 179098-71-6 182131-88-0
RL: **DEV (Device component use); USES (Uses)**
(processing photog. material containing hydrazine derivative and core-shell polymer latex utilizing hydroquinone-free developer)
IT 27812-11-9, 2-Acetoacetoxyethyl methacrylate-styrene copolymer 129489-24-3, 2-Acetoacetoxyethyl methacrylate-methyl acrylate copolymer 200729-00-6
RL: **DEV (Device component use); USES (Uses)**
(shell; processing photog. material containing core-shell polymer latex utilizing hydroquinone-free developer)
IT 200729-00-6
RL: **DEV (Device component use); USES (Uses)**
(shell; processing photog. material containing core-shell polymer latex utilizing hydroquinone-free developer)
RN 200729-00-6 HCAPLUS
CN Butanoic acid, 3-oxo-, 1-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 86713-96-4

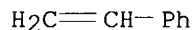
CMF C11 H16 O5



CM 2

CRN 100-42-5

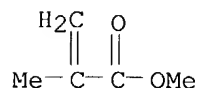
CMF C8 H8



CM 3

CRN 80-62-6

CMF C5 H8 O2



L57 ANSWER 26 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:476790 HCAPLUS

DN 125:117628

TI Pressure-sensitive transferring image-protective coverings containing an ultraviolet absorber and method for its use

IN Abe, Tsotomu; Suzuki, Eiichi; Sakaki, Mamoru; Noguchi, Hiromichi; Matsuo, Keisuke; Hirose, Mifune; Moriya, Kenichi

PA Canon K. K., Japan

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA English

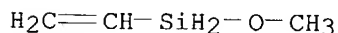
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 715965	A1	19960612	EP 1995-119412	19951208
	EP 715965	B1	19990616		
	R: CH, DE, FR, GB, IT, LI				
	JP 08230094	A2	19960910	JP 1995-305387	19951124
	JP 3478647	B2	20031215		
	US 5954906	A	19990921	US 1997-851273	19970505
PRAI	JP 1994-305819	A	19941209		
	JP 1995-305387	A	19951124		
	US 1995-569928	B1	19951208		

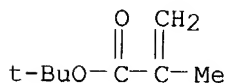
AB A pressure-sensitive transferring protective covering material is prepared which comprises at least (a) a first flexible substrate, (b) an adhesive layer, (c) a solid resin layer, and (d) a second flexible substrate which are stacked in the named order, wherein said first flexible substrate (a) has a peel force of 30-120 g/in. against said adhesive layer (b), said adhesive layer (b) contains a hindered amine series light stabilizer and has a cohesion of 500-1500 g/in., said solid resin layer (c) comprises a transparent resin layer containing a UV absorber and has $T_g \geq 50^\circ$, and said second flexible substrate (d) has a peel force of 120 g/in. to 400 g/in. against said solid resin layer (c). A method for protecting and covering a print formed on an object uses said pressure-sensitive transferring protective covering material. Thus, an acrylic adhesive layer containing Tinuvin 123 light stabilizer was applied to a PET substrate to give layers b-a, and a solid Me methacrylate-vinylmethoxysilane copolymer containing Tinuvin 384 UV absorber was applied to another PET substrate to give layers c-d. The pressure-sensitive transferring protective covering material was formed by superposing the surface of the adhesive layer from b-a onto the surface of the solid resin layer of c-d. A variety of jet-printed paper (using a variety of colors)

were laminated through the adhesive **layer** of the image **protective coating** materials. The protective covering material enabled marked prevention of UV deterioration of the dye print, and the covered print was maintained in a desirable state without light deterioration even upon storing over a long period of time under severe environmental conditions.

IC ICM B41M007-00
 CC 42-11 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 43, 74
 IT 30586-90-4, Acrylonitrile-2-ethylhexyl acrylate-N-methylolacrylamide copolymer 179385-99-0 179386-07-3 179766-99-5
 RL: **DEV (Device component use)**; TEM (Technical or engineered material use); USES (Uses)
 (adhesive layer; in UV absorber-containing pressure-sensitive transfer protective covering for preventing light deterioration of print)
 IT 179386-01-7 **179386-03-9** 179386-05-1 179767-00-1
 RL: **DEV (Device component use)**; TEM (Technical or engineered material use); USES (Uses)
 (solid resin layer; in UV absorber-containing pressure-sensitive transfer protective covering for preventing light deterioration of print)
 IT 25038-59-9, Poly(ethylene terephthalate), uses
 RL: **DEV (Device component use)**; MSC (Miscellaneous); USES (Uses)
 (substrate; in UV absorber-containing pressure-sensitive transfer protective covering for preventing light deterioration of print)
 IT **179386-03-9**
 RL: **DEV (Device component use)**; TEM (Technical or engineered material use); USES (Uses)
 (solid resin layer; in UV absorber-containing pressure-sensitive transfer protective covering for preventing light deterioration of print)
 RN 179386-03-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with ethenylmethoxysilane and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 51473-56-4
 CMF C3 H8 O Si

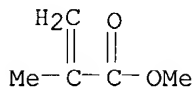


CM 2
 CRN 585-07-9
 CMF C8 H14 O2



CM 3
 CRN 80-62-6

CMF C5 H8 O2



L57 ANSWER 27 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:191659 HCAPLUS

DN 124:274532

TI Photopolymerizable compositions

IN Tsuchama, Masaaki; Nagasaka, Hideki; Urano, Toshoshi; Ide, Koji

PA Mitsubishi Kagaku KK, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07333847	A2	19951222	JP 1994-128919	19940610
PRAI	JP 1994-128919		19940610		

AB The title compns. comprise an addition-polymerizable compound having ≥ 1 ethylenic unsatd. bond, a photopolymn. initiator which can be activated by active rays, and a binder of a copolymer with weight average mol. weight (Mw) 10,000-500,000 comprising ≥ 1 selected from each group of branched alkyl methacrylates, branched alkyl acrylates, Me methacrylate, and methacrylic acid. The copolymer may contain, as an addnl. copolymer component, $\text{CH}_2:\text{CR}_1\text{CO}_2(\text{CH}_2)_n\text{OH}$ ($\text{R}_1 = \text{H}, \text{Me}; n = 3-10$). The compns. especially useful in production of presensitized lithog. plates show high sensitivity in visible region and good developability, gradation, ink adhesion, and printing durability. Thus, an Al support was coated with a composition containing

iso-Bu methacrylate-iso-Bu acrylate-Me methacrylate-methacrylic acid copolymer (Mw 100,000), trimethylolpropane triacrylate, 2,2'-bis(o-chlorophenyl)-4,4',5,5'-tetra(p-ethoxycarbonylphenyl)biimidazole, and 2-mercatobenzothiazole and with a **protective layer** to give a presensitized lithog. plate.

IC ICM G03F007-033

ICS G03F007-027; G03F007-028

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 36446-02-3, Trimethylolpropane triacrylate homopolymer

RL: DEV (Device component use); USES (Uses)

(presensitized lithog. plate containing acrylic copolymer binder)

IT 167208-84-6P 168203-54-1P **175284-45-4P** 175284-46-5P

RL: DEV (Device component use); PNU (Preparation, unclassified);

PREP (Preparation); USES (Uses)

(presensitized lithog. plate containing acrylic copolymer binder)

IT **175284-45-4P**

RL: DEV (Device component use); PNU (Preparation, unclassified);

PREP (Preparation); USES (Uses)

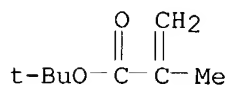
(presensitized lithog. plate containing acrylic copolymer binder)

RN 175284-45-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-methylpropyl
2-propenoate (9CI) (CA INDEX NAME)

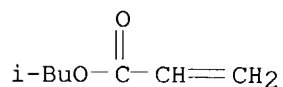
CM 1

CRN 585-07-9
CMF C8 H14 O2



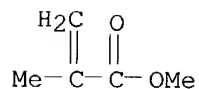
CM 2

CRN 106-63-8
CMF C7 H12 O2



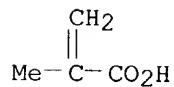
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2



L57 ANSWER 28 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:929711 HCAPLUS
DN 123:325753
TI **Electrophotographic** photoreceptors
IN Matsuyama, Akihiko; Yamazaki, Junichi; Imahashi, Naoki
PA Ricoh Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

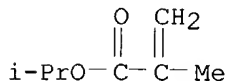
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07234534	A2	19950905	JP 1994-26715	19940224
PRAI	JP 1994-26715		19940224		
AB	In the photoreceptors comprising organic photoconductor layers , interlayers, and organopolysiloxane-containing protective layers , the interlayers are made from ≥ 1 of poly(Pr methacrylate), poly(Et methacrylate), and poly(Me methacrylate) having mol. weight $\leq 300,000$ or from poly(vinyl formal). Ethylene glycol monoethyl ether and/or ethylene glycol monomethyl ether may be used as solvents in forming the layers by application of solvents containing resins and drying. The photoreceptors are durable.				
IC	ICM G03G005-147 ICS G03G005-147; G03G005-05				
CC	74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)				
ST	electrophotog photoreceptor polymethacrylate; polyvinyl formal interlayer electrophotog				
IT	Electrophotographic photoconductors and photoreceptors (interlayer; electrophotog . photoreceptors with polymethacrylate or poly(vinyl formal) interlayers)				
IT	Siloxanes and Silicones, uses RL: DEV (Device component use); USES (Uses) (protective layer ; electrophotog . photoreceptors with polymethacrylate or poly(vinyl formal) interlayers)				
IT	Vinyl acetal polymers RL: DEV (Device component use); USES (Uses) (formals, electrophotog . photoreceptors with polymethacrylate or poly(vinyl formal) interlayers)				
IT	9003-42-3, Poly(ethyl methacrylate) RL: DEV (Device component use); USES (Uses) (038; electrophotog . photoreceptors with polymethacrylate or poly(vinyl formal) interlayers)				
IT	9011-14-7, Poly(methyl methacrylate) 25609-74-9, Poly(propyl methacrylate) 26655-94-7, Poly(isopropyl methacrylate) RL: DEV (Device component use); USES (Uses) (electrophotog . photoreceptors with polymethacrylate or poly(vinyl formal) interlayers)				
IT	109-86-4, Ethylene glycol monomethyl ether RL: NUU (Other use, unclassified); USES (Uses) (electrophotog . photoreceptors with polymethacrylate or poly(vinyl formal) interlayers)				
IT	90955-29-6, Tosguard 510 RL: DEV (Device component use); USES (Uses) (protective layer ; electrophotog . photoreceptors with polymethacrylate or poly(vinyl formal) interlayers)				
IT	110-80-5, Ethylene glycol monoethyl ether RL: NUU (Other use, unclassified); USES (Uses) (solvent; electrophotog . photoreceptors with polymethacrylate or poly(vinyl formal) interlayers)				
IT	26655-94-7, Poly(isopropyl methacrylate) RL: DEV (Device component use); USES (Uses) (electrophotog . photoreceptors with polymethacrylate or poly(vinyl formal) interlayers)				
RN	26655-94-7 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, 1-methylethyl ester, homopolymer (9CI) (CA INDEX NAME)				

CM 1

CRN 4655-34-9

CMF C7 H12 O2



L57 ANSWER 29 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:604366 HCAPLUS

DN 123:156561

TI **Electrode** polymer film for liquid crystal display

IN Arai, Yoshihiro; Hirayama, Tadasuke

PA Tonen Kagaku Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07077685	A2	19950320	JP 1993-246051	19930908
PRAI	JP 1993-246051		19930908		

AB The film, consisting of an optically isotropically transparent base film coated with a transparent conductive film, is characterized by: (1) the base film has **protective layers** on the both side and (2) ≥ 1 **protective layer** is an **electron** beam-hardened resin layer. The resin layer may be obtained from (a) a prepolymer selected from unsatd. polyester, epoxy-modified poly(meth)acrylate, urethane-modified poly(meth)acrylate, and/or polyester-modified poly(meth)acrylate and (b) ≥ 1 mono or polyhydric alc. acrylate. The protective film shows good chemical resistance.

IC ICM G02F001-1333
ICS G02F001-1333; G02F001-1343

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 42

ST polymer **electrode** film liq crystal display; acrylate
electron beam cured display film

IT Coating materials
(chemical resistant, chemical-resistant **electrode** polymer film for liquid crystal display)

IT Optical imaging **devices**
(liquid-crystal, chemical-resistant **electrode** polymer film for liquid crystal display)

IT 50926-11-9, ITO
RL: **DEV (Device component use); USES (Uses)**
(chemical-resistant **electrode** polymer film for liquid crystal display)

IT 156082-51-8P 166259-38-7P **166774-14-7P**
RL: **DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)**
(**electron** beam-hardened; chemical-resistant **electrode** polymer film for liquid crystal display)

IT **166774-14-7P**

RL: **DEV (Device component use)**; PNU (Preparation, unclassified);
 PREP (Preparation); USES (Uses)
 (electron beam-hardened; chemical-resistant **electrode**
 polymer film for liquid crystal display)

RN 166774-14-7 HCAPLUS

CN 2-Propenoic acid, 1-methyl-1,3-propanediyl ester, polymer with Aronix M
 8030 (9CI) (CA INDEX NAME)

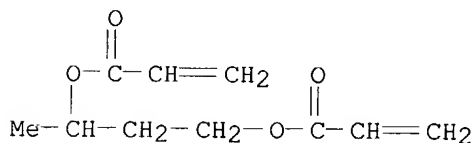
CM 1

CRN 61287-25-0
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 19485-03-1
 CMF C10 H14 O4



L57 ANSWER 30 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:490225 HCAPLUS

DN 122:302926

TI Silver halide photographic material

IN Tsukada, Kazuya

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07028180	A2	19950131	JP 1993-171755	19930712
PRAI	JP 1993-171755		19930712		

AB The title photog. materials, comprising a support coated with ≥ 1 Ag halide emulsion layer containing plate-like Ag halide grains with aspect ratio ≥ 3 and ≥ 1 non-photosensitive hydrophilic colloid layer, contain a polymer latex in the emulsion layer and/or the colloid layer, and the glass transition temperature (T_g°) of the latex and the development temperature (D°) and fixing temperature (F°) upon processing satisfy the relations, $T_g \geq D$ and $T_g \geq F$. The materials show good stability in processing upon rapid processing, stable image d. after development, and improved abrasion resistance and prevent roller marks. Thus, a PET support with an undercoat layer was coated with a Ag(I, B) (aspect ratio 3.5) emulsion layer containing isononyl acrylate-cyclohexyl methacrylate-glycidyl methacrylate copolymer latex ($T_g 41^\circ$) and a gelatin-based **protective layer** to give a photog. film, which was exposed with x-ray, developed at

35°, and fixed at 33°.

IC ICM G03C001-04
ICS G03C001-035

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 9003-05-8, Polyacrylamide 26428-43-3, Butyl acrylate-glycidyl methacrylate-styrene copolymer 29497-08-3 161420-57-1
161717-07-3 163186-85-4
RL: DEV (Device component use); USES (Uses)
(photog. film containing tabular silver halide grains and polymer latex)

IT 29497-08-3
RL: DEV (Device component use); USES (Uses)
(photog. film containing tabular silver halide grains and polymer latex)

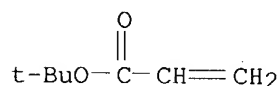
RN 29497-08-3 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 1,1-dimethylethyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 1663-39-4

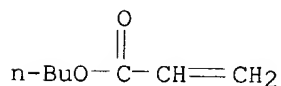
CMF C7 H12 O2



CM 2

CRN 141-32-2

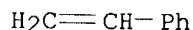
CMF C7 H12 O2



CM 3

CRN 100-42-5

CMF C8 H8



L57 ANSWER 31 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:438018 HCAPLUS

DN 122:189611

TI Manufacture of substituted polydiphenylacetylene gas separation membranes

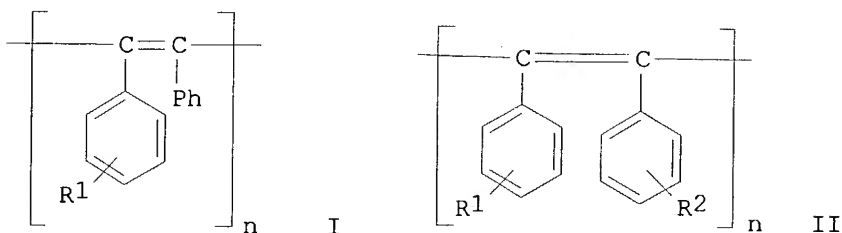
IN Sugafuji, Masaya; Sawada, Tasuke; Kimura, Masanori; Kaneharu, Katsuhide

PA Matsushita Electric Ind Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF

DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06246143	A2	19940906	JP 1993-37648	19930226
	JP 3278953	B2	20020430		
PRAI	JP 1993-37648		19930226		
GI					



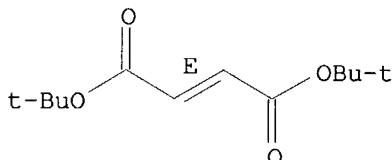
- AB The process is carried out by developing I and/or II (R1 = alkyl, trialkylsilyl; R2 = halogen, alkyl, trialkylsilyl; n = 40-40000), water developing agent, and adhesive aides on water, contacting with porous supporter, and laminating with a siloxane **protective layer**. Thus, a membrane was prepared from polyethylsulfone porous supporter, poly[1-(p-trimethylsilylphenyl)-2-phenylacetylene], poly(di-tert-butylfumarate), dioctyl phthalate, and copolymer of SH 410 and styrene.
- IC ICM B01D071-44
 ICS B01D071-70
- CC 38-2 (Plastics Fabrication and Uses)
- IT Fluoropolymers
 Polyacetylenes, uses
 RL: **DEV (Device component use)**; NUU (Other use, unclassified);
 USES (Uses)
 (manufacture of substituted polydiphenylacetylene gas separation membranes)
- IT Siloxanes and Silicones, uses
 RL: **DEV (Device component use)**; NUU (Other use, unclassified);
 USES (Uses)
 (polymers with styrene; manufacture of substituted polydiphenylacetylene gas separation membranes)
- IT 117-81-7, Dioctylphthalate
 RL: **DEV (Device component use)**; MOA (Modifier or additive use);
 USES (Uses)
 (manufacture of substituted polydiphenylacetylene gas separation membranes)
- IT 100-42-5D, Styrene, polymers with siloxanes **41700-07-6**, Poly(di-tert-butylfumarate) 136459-73-9, Poly[1-(p-trimethylsilylphenyl)-2-phenylacetylene] 153404-61-6 157673-32-0
 RL: **DEV (Device component use)**; NUU (Other use, unclassified);
 USES (Uses)
 (manufacture of substituted polydiphenylacetylene gas separation membranes)
- IT **41700-07-6**, Poly(di-tert-butylfumarate)
 RL: **DEV (Device component use)**; NUU (Other use, unclassified);
 USES (Uses)
 (manufacture of substituted polydiphenylacetylene gas separation membranes)

RN 41700-07-6 HCAPLUS
 CN 2-Butenedioic acid (2E)-, bis(1,1-dimethylethyl) ester, homopolymer (9CI)
 (CA INDEX NAME)

CM 1

CRN 7633-38-7
 CMF C12 H20 O4

Double bond geometry as shown.



L57 ANSWER 32 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1995:382973 HCAPLUS
 DN 123:58100
 TI Block and graft copolymers as adhesion promoters
 IN Long, Timothy E.; Coltrain, Bradley K.; Teegarden, David M.
 PA Eastman Kodak Co., USA
 SO U.S., 6 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5384192	A	19950124	US 1993-29726	19930311
PRAI	US 1993-29726		19930311		

AB A structure comprising an inorg. oxide substrate having thereon an organic polymer layer, characterized in that interposed between the substrate and the organic polymer layer there is an adhesion promoting layer of a block or graft copolymer, one component of which is compatible with the organic polymer and a second of which is a poly(vinyl phenol) component that is capable of hydrogen bonding with the inorg. oxide substrate is disclosed. Preferably, the substrate is a semiconductor material and the adhesion promoter facilitates the adhesion of a photoresist or **protective coating**. For example, a 4-vinylphenol-styrene block copolymer was prepared as an adhesion promoter.

IC ICM B32B027-04

NCL 428336000

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

IT 24801-88-5P, 3-Isocyanatopropyltriethoxysilane 136704-64-8DP, reaction products with 3-isocyanatopropyltriethoxysilane 136704-71-7DP, hydrolyzed 154635-34-4DP, reaction products with 3-isocyanatopropyltriethoxysilane 154635-34-4P **164905-45-7DP**, hydrolyzed

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(block and graft copolymers as adhesion promoters)

IT **164905-45-7DP**, hydrolyzed

RL: IMF (Industrial manufacture); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)
 (block and graft copolymers as adhesion promoters)

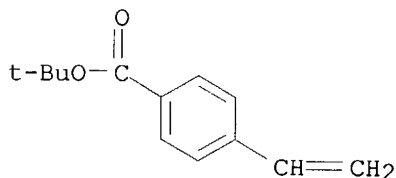
RN 164905-45-7 HCAPLUS

CN Benzoic acid, 4-ethenyl-, 1,1-dimethylethyl ester, polymer with
 ethenylbenzene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 84740-98-7

CMF C13 H16 O2



CM 2

CRN 100-42-5

CMF C8 H8

$\text{H}_2\text{C}=\text{CH}-\text{Ph}$

L57 ANSWER 33 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:312601 HCAPLUS

DN 122:92780

TI Silver halide photographic materials

IN Muramatsu, Juzo; Tamura, Yutaka

PA Fuji Photo Film Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06266040	A2	19940922	JP 1993-52393	19930312
PRAI	JP 1993-52393		19930312		

AB In the title materials comprising a support coated with \geq Ag halide emulsion-containing hydrophilic colloid layer and \geq 1 non-photosensitive hydrophilic colloid layer, the emulsion-containing colloid layer contains \geq 1 CO₂H-containing polymer with \geq 15% CO₂H-containing monomer unit and \geq 1.5 meq/g acid value except poly(acrylic acid) or particles, and the non-photosensitive colloid layer farthest from the support contains anionic group-containing polymer particles as a matt agent. The materials show good drying properties upon super-rapid developing processing and prevent roller marks and white spot formation. Thus, a PET support with an undercoat layer was coated with a Ag(Br, I) gelatin emulsion **layer** and a gelatin-based **protective layer** contg poly(methacrylic acid) and methacrylic acid-Me

methacrylate copolymer particles successively on the both sides to give a photog. film.

IC ICM G03C001-32
ICS G03C001-053; G03C001-76

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 25087-26-7, Poly(methacrylic acid) 55765-89-4, Ethyl methacrylate-methacrylic acid-methyl methacrylate copolymer
132878-52-5
RL: DEV (Device component use); USES (Uses)
(photog. materials containing anionic polymer particles as matt agents and carboxylic group-containing polymers)

IT 25086-15-1P, Methacrylic acid-methyl methacrylate copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified);
PREP (Preparation); USES (Uses)
(photog. materials containing anionic polymer particles as matt agents and carboxylic group-containing polymers)

IT 132878-52-5
RL: DEV (Device component use); USES (Uses)
(photog. materials containing anionic polymer particles as matt agents and carboxylic group-containing polymers)

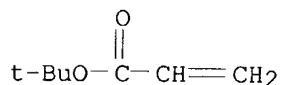
RN 132878-52-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 1663-39-4

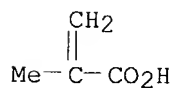
CMF C7 H12 O2



CM 2

CRN 79-41-4

CMF C4 H6 O2



L57 ANSWER 34 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:712165 HCAPLUS

DN 121:312165

TI High-density optical information recording medium

IN Kijima, Yasunori; Iwamura, Takashi; Tamura, Shinichiro; Seto, Nobuyoshi

PA Sony Corp., Japan

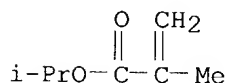
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06219053	A2	19940809	JP 1993-27245	19930122
PRAI	JP 1993-27245		19930122		
AB	The medium consists of a substrate successively coated with (1) a recording (write-in and/or read-out) layer containing a light-absorbing substance and a polymer with melt viscosity (MV) and (2) a protective layer , where MV is defined as $0.023 \log(MV/P) + 0.002 Tg/C^\circ \leq 0.274$. The polymer may be substituted methacrylate polymers. The medium shows signal pattern width $\leq 1.0 \mu m$ for high-d. recording.				
IC	ICM B41M005-26				
	ICS G11B007-00; G11B007-24				
CC	74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)				
IT	9003-42-3, Poly(ethyl methacrylate) 9086-85-5, Poly(hydroxypropyl methacrylate) 25189-01-9, Poly(phenyl methacrylate) 25768-50-7, Poly(cyclohexyl methacrylate) 26655-94-7 , Poly(isopropyl methacrylate)				
	RL: DEV (Device component use) ; USES (Uses) (write-in and read-out high-d. optical recording medium containing polymers)				
IT	26655-94-7 , Poly(isopropyl methacrylate)				
	RL: DEV (Device component use) ; USES (Uses) (write-in and read-out high-d. optical recording medium containing polymers)				
RN	26655-94-7 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, 1-methylethyl ester, homopolymer (9CI) (CA INDEX NAME)				
CM	1				
CRN	4655-34-9				
CMF	C7 H12 O2				



L57 ANSWER 35 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1993:437264 HCAPLUS

DN 119:37264

TI **Coating** resin compositions and compositions for **protective** films of optical filters

IN Kobayashi, Akihiro; Uruno, Michio; Akima, Toshio; Minamizawa, Hiroshi; Morinaga, Takashi

PA Hitachi Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

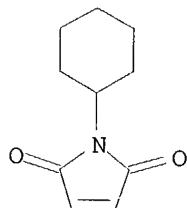
DT Patent

LA Japanese

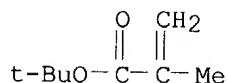
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04315102	A2	19921106	JP 1991-80338	19910415

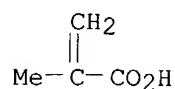
PRAI JP 1991-80338 19910415
 AB The resin composition contains (1) a copolymer from a N-substituted maleimide, a methacrylic acid ester of C4-8 tert-alc., acrylic and/or methacrylic acid, and optional monomer(s), and (2) an epoxy resin containing ≥ 2 epoxy radicals in its mol.
 IC ICM G02B001-10
 ICS G02B001-04; G02B005-20
 CC 73-12 (Optical, **Electron**, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 38
 IT Optical filters
 (coating resin compns. for protective films of)
 IT 148360-89-8 148360-90-1 148382-63-2
 RL: USES (Uses)
 (coating compns. containing, for optical filters)
 IT 148360-89-8 148360-90-1 148382-63-2
 RL: USES (Uses)
 (coating compns. containing, for optical filters)
 RN 148360-89-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 1-cyclohexyl-1H-pyrrole-2,5-dione and 1,1-dimethylethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 1631-25-0
 CMF C10 H13 N O2



CM 2
 CRN 585-07-9
 CMF C8 H14 O2



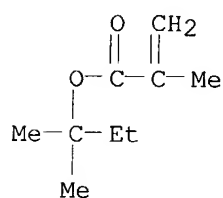
CM 3
 CRN 79-41-4
 CMF C4 H6 O2



RN 148360-90-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylpropyl
 2-methyl-2-propenoate and 1-phenyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX
 NAME)

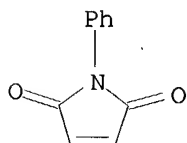
CM 1

CRN 7383-24-6
 CMF C9 H16 O2



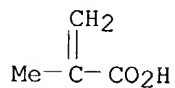
CM 2

CRN 941-69-5
 CMF C10 H7 N O2



CM 3

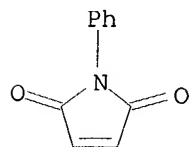
CRN 79-41-4
 CMF C4 H6 O2



RN 148382-63-2 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl
 2-methyl-2-propenoate and 1-phenyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX
 NAME)

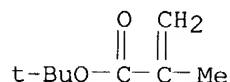
CM 1

CRN 941-69-5
CMF C10 H7 N O2



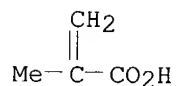
CM 2

CRN 585-07-9
CMF C8 H14 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



L57 ANSWER 36 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1993:410531 HCAPLUS

DN 119:10531

TI Thermally depolymerizable polycarbonate **protective coatings** for printed circuit boards

IN Campbell, John Stewart; Pang, Pak Keung; King, Charles Edmund; Mackie, Andrew Christopher

PA Cookson Group PLC, UK

SO PCT Int. Appl., 13 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9219088	A1	19921029	WO 1992-GB662	19920413
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	EP 579644	A1	19940126	EP 1992-907659	19920413
	R: AT, DE, FR, GB, IT				
	JP 06509681	T2	19941027	JP 1992-507720	19920413
PRAI	GB 1991-7859		19910412		
	WO 1992-GB662		19920413		

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

AB The title polycarbonates contain units of R1OCOOR2OOCO (R1, R2 = C4-30 hydrocarbon groups having tertiary C, allylic, propargylic or benzylic groups directly attached to ≥ 1 O atom). Thus, a 2,5-dimethyl-O, O'-bis(1-imidazolylcarbonyl)-2,5-hexanediol-1,3 (or 1,4)-benzenedimethanol copolymer was prepared

IC ICM H05K001-02
ICS H05K003-28; C08G064-40

CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 76

ST polycarbonate thermally depolymerizable coating **elec** circuit;
printed circuit board coating polycarbonate

IT **Electric** circuits
(printed, **protective coatings** for, thermally depolymerizable polycarbonates as)

IT 99280-54-3 **148185-62-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, thermally depolymerizable, for printed circuit boards)

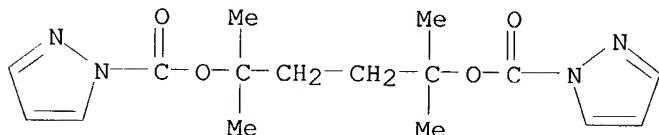
IT **148185-62-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, thermally depolymerizable, for printed circuit boards)

RN 148185-62-0 HCAPLUS

CN 1H-Pyrazole-1-carboxylic acid, 1,1,3,3-tetramethyl-1,4-butanediyl ester, polymer with 1,3-benzenedimethanol and 1,4-benzenedimethanol (9CI) (CA INDEX NAME)

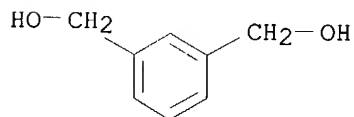
CM 1

CRN 148185-61-9
CMF C16 H22 N4 O4



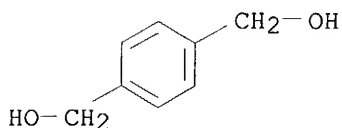
CM 2

CRN 626-18-6
CMF C8 H10 O2



CM 3

CRN 589-29-7
CMF C8 H10 O2



L57 ANSWER 37 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1993:180058 HCAPLUS

DN 118:180058

TI Fine resist pattern formation

IN Hashimoto, Kazuhiko; Endo, Masayuki

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 488372	A1	19920603	EP 1991-120519	19911129
	R: DE, FR, GB				
	JP 04204848	A2	19920727	JP 1990-338147	19901130
PRAI	JP 1990-338147		19901130		
AB	A process for forming a fine resist pattern on a semiconductor substrate comprises the steps: (a) coating a semiconductor substrate with a chemical amplification-type radiation resist layer containing an acid-generating agent and heat-treating the resist layer; (b) coating the resist layer with a water-soluble polymer resin incompatible with the resist layer to protect the acid to be generated in the resist layer in the subsequent step of exposing the resist layer to radiation and removing the water-soluble polymer resin; (d) heat-treating the resist layer to form a latent pattern; and (e) developing the resist layer with an aqueous alkali solution to form a resist pattern on the substrate. The resist pattern thus formed shows improved accuracy.				
IC	ICM G03F007-11				
	ICS G03F007-004				
CC	74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)				
ST	radiation resist resin protective layer				
IT	Resists (electron-beam , chemical amplification-type, containing acid-generating agents, resin protective layers for)				
IT	Resists (photo-, chemical amplification-type, containing acid-generating agents, resin protective layers for)				
IT	91380-16-4 RL: USES (Uses) (chemical amplification-type radiation resists containing acid-generating agents and, resin protective layers for)				
IT	123658-14-0 RL: USES (Uses) (chemical amplification-type radiation resists containing, resin protective layers for)				
IT	9002-89-5, Poly(vinyl alcohol) 25086-42-4 29965-34-2				

RL: USES (Uses)
 (protective layers from, for chemical
 amplification-type electron-beam resists)

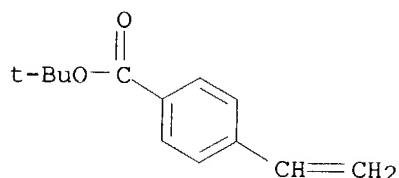
IT 91380-16-4
 RL: USES (Uses)
 (chemical amplification-type radiation resists containing acid-generating
 agents and, resin protective layers for)

RN 91380-16-4 HCAPLUS

CN Benzoic acid, 4-ethenyl-, 1,1-dimethylethyl ester, homopolymer (9CI) (CA
 INDEX NAME)

CM 1

CRN 84740-98-7
 CMF C13 H16 O2



L57 ANSWER 38 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1993:23508 HCAPLUS
 DN 118:23508
 TI Composite membranes for gas separation and their manufacture
 IN Sawada, Tasuke; Yoshino, Yozo
 PA Matsushita Electric Industrial Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 3 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04317734	A2	19921109	JP 1991-85055	19910417
PRAI	JP 1991-85055		19910417		

AB The title membrane comprises a porous support, a gas-separation polymer layer, and a water-crosslinked network-structured silicone rubber protective top layer, in this order. The membrane is manufactured by spreading organic solns. of curable siloxanes on water, evaporating the solvent, and mounting the resulting network-structured silicone rubber film on top of a polymer membrane-laminated porous support. Thus, spreading a solution of di-Me siloxane-styrene copolymer and poly(di-tert-Bu fumarate) in BuCl on water, mounting 2 layers of the film on a porous poly(ether sulfone) support, spreading a solution of SE 9157 (silicone rubber) in BuCl on water, and mounting 2 layers of the rubber film on top of the gas-separation film gave title membrane with O permeability 2.37 cm³/s and O/N separation factor 2.6.

IC ICM B01D071-70
 ICS B32B027-00

CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 39, 47

IT Rubber, silicone, uses
 RL: DEV (Device component use); USES (Uses)
 (composite membranes containing, for gas separation)

IT 41700-07-6, Poly(di-tert-butyl fumarate)
 RL: USES (Uses)
 (polystyrene-siloxane blends, composite membranes, with silicone rubber, for gas separation)

IT 41700-07-6, Poly(di-tert-butyl fumarate)
 RL: USES (Uses)
 (polystyrene-siloxane blends, composite membranes, with silicone rubber, for gas separation)

RN 41700-07-6 HCAPLUS

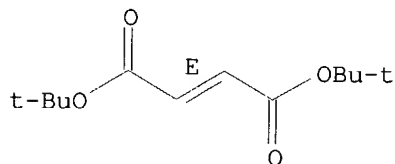
CN 2-Butenedioic acid (2E)-, bis(1,1-dimethylethyl) ester, homopolymer (9CI)
 (CA INDEX NAME)

CM 1

CRN 7633-38-7

CMF C12 H20 O4

Double bond geometry as shown.



L57 ANSWER 39 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1991:494512 HCAPLUS

DN 115:94512

TI UV- and **electron** beam-curable acrylic polymer coating compositions

IN Uchiyama, Hiroshi; Nishiyama, Shizuo

PA E. C. Chemical Industry Co., Ltd., Japan; New Japan Chemical Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03052908	A2	19910307	JP 1989-184778	19890719
	JP 2869796	B2	19990310		
PRAI	JP 1989-184778		19890719		

AB The title compns., useful for protection of acrylic polymer and polycarbonate sheets, contain 4,4'-isopropylidenedicyclohexanol dimethacrylate (I) or diacrylate, reactive diluents, and photochem. curing agents. Thus, a mixture of I 50, Me methacrylate 25, 1,3-butanediol dimethacrylate 23, and 2-hydroxy-2-methyl-1-phenyl-1-propanone 2 parts was cast on an acrylic polymer sheet and cured by UV to give a film with pencil hardness 7H and good adhesion; vs. 5H and extremely poor, resp., with a polyester acrylate in place of I.

IC ICM C08F220-20
 ICS C08F002-48; C08F220-14; C08F220-28

ICA C09D004-02

CC 42-7 (Coatings, Inks, and Related Products)
 ST isopropylidenedicyclohexanol methacrylate coating; UV curable coating
 plastic; **electron** beam curable coating; reactive diluent coating
 radiocurable; acrylate isopropylidenedicyclohexanol coating
 IT 80-62-6D, Methyl methacrylate, polymers with isopropylidenedicyclohexylene
 methacrylate, butylene methacrylate and urethane acrylates 1189-08-8D,
 1,3-Butylene glycol dimethacrylate, polymers with
 isopropylidenedicyclohexylene methacrylate, Me methacrylate and urethane
 acrylates 39664-33-0D, polymers with methacrylates and urethane
 acrylates **135670-74-5** 135670-75-6

RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, radiocurable, for **protection** of plastic
 sheets)

IT **135670-74-5**

RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, radiocurable, for **protection** of plastic
 sheets)

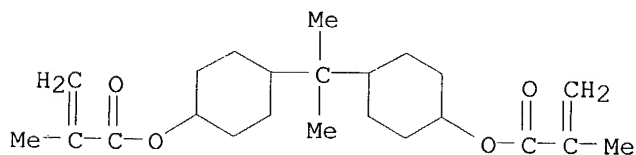
RN 135670-74-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)di-4,1-cyclohexanediyl
 ester, polymer with methyl 2-methyl-2-propenoate and 1-methyl-1,3-
 propanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 39664-33-0

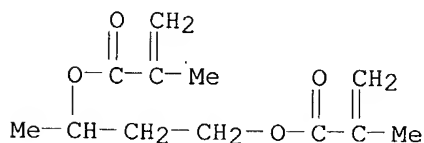
CMF C23 H36 O4



CM 2

CRN 1189-08-8

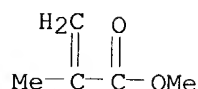
CMF C12 H18 O4



CM 3

CRN 80-62-6

CMF C5 H8 O2



L57 ANSWER 40 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1991:450519 HCAPLUS

DN 115:50519

TI Hard and transparent resins

IN Suzuki, Nobuyuki; Sasagawa, Katsuyoshi; Kanemura, Yoshinobu; Imai, Masao

PA Mitsui Toatsu Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03014804	A2	19910123	JP 1990-45844	19900228
	JP 2793681	B2	19980903		
PRAI	JP 1989-45106		19890228		

AB Resins useful for **protective** covers of display **devices**, hard **coats**, and plastic lenses are prepared by polymerization of monomers bearing H₂C:C(Me)C₆H₄O, (meth)acryloyl, or H₂C:CHC₆H₄CH₂ groups. Thus, heating 29 parts 4-isopropenylphenyl acrylate with 0.3 parts Bz2O2 from 60° to 140° over 2 h gave a plate having good transparency and pencil hardness 9 H.

IC ICM C08F012-12

ICS C08F020-10; C08F020-54; C08F026-02; C09D004-00; C09D004-02; G02B001-04

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 38, 42, 73

ST display **device** cover; plastic lens transparency; isopropylphenyl acrylate polymer prepnIT Optical imaging **devices**

(covers for, isopropenylphenyl (meth)acrylate polymers as)

IT 135073-22-2P 135073-24-4P 135073-26-6P **135073-28-8P**

135073-30-2P 135073-31-3P 135073-32-4P

RL: PREP (Preparation)

(preparation of transparent, for coatings and lenses)

IT **135073-28-8P**

RL: PREP (Preparation)

(preparation of transparent, for coatings and lenses)

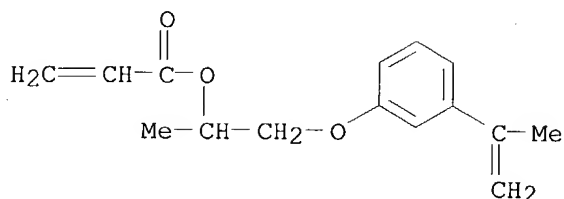
RN 135073-28-8 HCAPLUS

CN 2-Propenoic acid, 1-methyl-2-[3-(1-methylethenyl)phenoxy]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 135073-27-7

CMF C15 H18 O3



L57 ANSWER 41 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1991:63458 HCAPLUS
 DN 114:63458
 TI Hard surface transparent resins and polymerizable monomers
 IN Suzuki, Toshiyuki; Sasagawa, Katsuyoshi; Imai, Masao; Kanemura, Yoshinobu
 PA Mitsui Toatsu Chemicals, Inc., Japan
 SO Eur. Pat. Appl., 53 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 385457	A2	19900905	EP 1990-103952	19900301
	EP 385457	A3	19910724		
	EP 385457	B1	19940601		
	R: CH, DE, FR, GB, IT, LI, NL, SE				
	BR 9000917	A	19910213	BR 1990-917	19900223
	CA 2011074	AA	19900901	CA 1990-2011074	19900228
	AU 9050563	A1	19900906	AU 1990-50563	19900228
	AU 618879	B2	19920109		
	JP 03047817	A2	19910228	JP 1990-45845	19900228
	JP 03072513	A2	19910327	JP 1990-45846	19900228
	JP 2979022	B2	19991115		
	CN 1048392	A	19910109	CN 1990-101780	19900301
	CN 1028867	B	19950614		
	US 5145927	A	19920908	US 1990-487212	19900301
	US 5260439	A	19931109	US 1991-808240	19911216
	US 5250723	A	19931005	US 1992-926300	19920810
	US 5440358	A	19950808	US 1993-107975	19930818
	CN 1104650	A	19950705	CN 1994-116267	19940922
	CN 1104651	A	19950705	CN 1994-116268	19940922
	CN 1104631	A	19950705	CN 1994-116269	19940922
PRAI	JP 1989-48919	A	19890301		
	JP 1989-66240	A	19890320		
	JP 1989-131559	A	19890526		
	JP 1989-126629	A	19890522		
	JP 1989-241759	A	19890920		
	US 1990-486950	A3	19900301		
	US 1990-487212	A3	19900301		
	US 1991-808240	A3	19911216		

AB The title resins, useful for **protective** covers for display devices, lenses, coating materials, etc., are prepared from (H₂C:CM₆H₄O)_iRL(X₁CONH₂CM₂C₆H₄CM:CH₂)_j [R = (O-, alicyclic-, heterocyclic-, or aromatic-substituted) aliphatic or alicyclic residue; i = 0 or 1; j = ≥1; X = O and/or S] and copolymerizable monomers with ≥1 functionality containing CH₂:CHCO₂-, CH₂:CM₆CO₂-, and/or CH₂CHC₆H₄-.

Thus, 4-isopropenylphenol 13.4, 3-isopropenyl- α,α -dimethylbenzyl isocyanate 20.1, PhMe 50, and dibutyltin dilaurate 0.3 part were stirred 3 h at 100° to give [N-(3-isopropenyl- α,α -dimethylbenzyl)(4-isopropenylphenyl)carbamate, which (75.0 parts) was polymerized with 71.2 parts neopentyl glycol diacrylate and molded to give a transparent molding having smooth surface.

IC ICM C08F212-34

ICS C08F212-14; C09D125-18; C07C271-06; C07C333-04; G03C011-08;
G11B007-24; G02B001-04

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

IT 131494-19-4P 131539-18-9P 131539-20-3P **131539-22-5P**

131539-25-8P 131552-37-9P

RL: PREP (Preparation)

(preparation of, for transparent optical materials and coatings, with good hardness)

IT **131539-22-5P**

RL: PREP (Preparation)

(preparation of, for transparent optical materials and coatings, with good hardness)

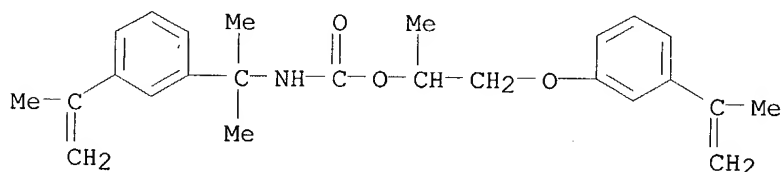
RN 131539-22-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[[2-methyl-1-oxo-2-propenyl)oxy)methyl]-1,3-propanediyl ester, polymer with 1-methyl-2-[3-(1-methylethenyl)phenoxy]ethyl [1-methyl-1-[3-(1-methylethenyl)phenyl]ethyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 131539-21-4

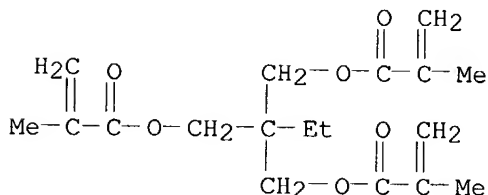
CMF C25 H31 N O3



CM 2

CRN 3290-92-4

CMF C18 H26 O6



L57 ANSWER 42 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

AN 1987:215602 HCAPLUS
 DN 106:215602
 TI Epoxy acrylate thermoset composition for **protective coatings**
 IN Matsuki, Yasuo; Endo, Masayuki; Karya, Yoshinobu; Matsumoto, Shuichi
 PA Japan Synthetic Rubber Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61252225	A2	19861110	JP 1985-94074	19850430
PRAI	JP 1985-94074		19850430		
AB	The title compns. giving a durable layer having high transmittance, useful for surface protection of liquid crystal display elements and camera image-sensors, comprise 100 parts copolymer containing ≥ 60 mol% glycidyl (meth)acrylate and 0.01-50 parts carboxylic acid or its derivs. Thus, a mixture of poly(glycidyl methacrylate) (mol. weight .apprx.80,000) 6, ethylene glycol monoethyl ether acetate 49, γ -glycidoxypropyltrimethoxysilane 0.3, and a carboxylic anhydride (Adeka Hardner EHX 700) 0.6 g was coated on a glass plate and cured for 1 h at 150° to give .apprx.0.39- μ layer exhibiting light transmittance $\geq 95\%$ at 300-800 nm withstanding 200 h of heating at 200° and immersion in boiling water and hot PhMe.				
IC	ICM C08G059-42				
	ICS C08G059-32				
CC	42-9 (Coatings, Inks, and Related Products)				
	Section cross-reference(s): 74				
ST	polycarboxylic acid epoxy acrylate coating; glycidoxypropyltrimethoxysilane epoxy acrylate coating; liq crystal display epoxy coating; camera image sensor epoxy coating; glycidyl methacrylate protective coating				
IT	Cameras (image-sensors, protective coatings for, epoxy acrylate resins as, transparent, durable)				
IT	Optical materials (films, epoxy acrylates, transparent, durable, for surface protection of optical imaging devices)				
IT	Optical imaging devices (liquid-crystal, protective coatings for, epoxy acrylate resins as, transparent, durable)				
IT	53904-75-9	108491-14-1	108491-15-2	108491-16-3	108491-17-4
	108491-18-5	108491-19-6	108491-20-9	108491-21-0	108491-22-1
	108491-23-2	108491-24-3	108491-25-4	108491-26-5	
	108491-27-6	108520-97-4	108520-98-5		
	RL: TEM (Technical or engineered material use); USES (Uses) (coatings, transparent, for optical imaging devices)				
IT	2530-83-8, γ -Glycidoxypropyltrimethoxysilane		3388-04-3,		
	β -(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane		61417-49-0,		
	Isopropyltriisostearoyl titanate				
	RL: USES (Uses) (coupling agents, epoxy (meth)acrylate resin coatings containing, for optical imaging devices)				
IT	108491-25-4 108491-26-5				
	RL: TEM (Technical or engineered material use); USES (Uses) (coatings, transparent, for optical imaging devices)				
RN	108491-25-4 HCAPLUS				

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with Adeka EHX 700 and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 102482-97-3

CMF Unspecified

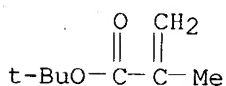
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 585-07-9

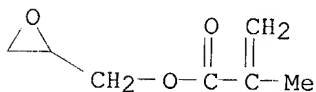
CMF C8 H14 O2



CM 3

CRN 106-91-2

CMF C7 H10 O3



RN 108491-26-5 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with Adeka EHX 700 and oxiranylmethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 102482-97-3

CMF Unspecified

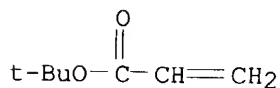
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

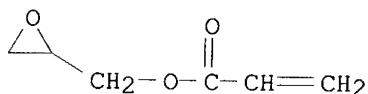
CRN 1663-39-4

CMF C7 H12 O2



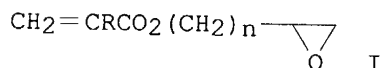
CM 3

CRN 106-90-1
CMF C6 H8 O3



L57 ANSWER 43 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1987:178196 HCAPLUS
DN 106:178196
TI Thermosetting resin compositions
IN Matsuki, Yasuo; Endo, Masayuki; Kariya, Yoshinobu; Matsumoto, Shuichi
PA Japan Synthetic Rubber Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61221218	A2	19861001	JP 1985-63016	19850327
	JP 05054515	B4	19930812		
PRAI	JP 1985-63016		19850327		
GI					



AB Thermosetting coating compns. giving a transparent layer with high heat and staining resistance comprise copolymers of epoxy monomer (I) (R = H, lower alkyl; n = 1-5) and CH₂:CR₁CO₂(CH₂)_nSi(OR₂)₃ (II) (R₁ = H, lower alkyl; R₂ = lower alkyl; n = 1-5) and ≥1 polyvalent carboxylic acid (anhydride) as a curing agent. The composition is useful as **protective coatings** for color filters in liquid display apparatus. Thus, a solution of 10.2 g 75:25 glycidyl methacrylate-3-methacryloyloxypropyltrimethoxysilane copolymer in 95 g Et cellosolve acetate was mixed with 0.5 g trimellitic acid coated on a glass plate, and heated at 150° for 30 min to form a 0.35-μ film, which showed total light transmittance ≥95% and cross-cut adhesion 100/100 after 5 h in boiling water and toluene, with no crack formation after 200 h of heating at 200° and no staining after 30 min of immersion in 100° aqueous acidic dye solution

IC ICM C08G059-32
ICS C08L063-00

ICA C08F220-32; C08F230-08

CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 73

IT Optical imaging **devices**
(color filters for, **protective coatings** for, epoxyalkyl methacrylate-alkoxysilylalkyl methacrylate copolymers as)

IT Optical filters

(for liquid crystal display apparatus, **protective coatings**
for, epoxyalkyl methacrylate-alkoxysilylalkyl methacrylate copolymers
as)

IT 70939-77-4 108065-05-0 108065-06-1 108065-07-2
108065-08-3

RL: TEM (Technical or engineered material use); USES (Uses)
(**coatings, protective, for layers** with
high heat, water, solvent and staining resistance, for color filters in
liquid display apparatus)

IT 70939-77-4 108065-07-2

RL: TEM (Technical or engineered material use); USES (Uses)
(**coatings, protective, for layers** with
high heat, water, solvent and staining resistance, for color filters in
liquid display apparatus)

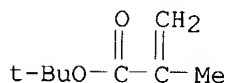
RN 70939-77-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with
oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 585-07-9

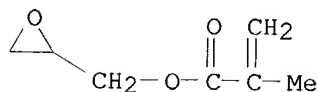
CMF C8 H14 O2



CM 2

CRN 106-91-2

CMF C7 H10 O3



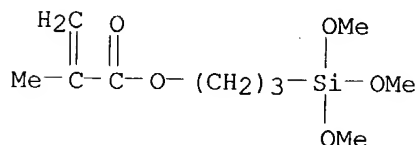
RN 108065-07-2 HCAPLUS

CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,1-dimethylethyl
2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and
3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

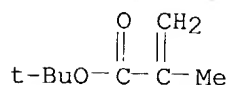
CRN 2530-85-0

CMF C10 H20 O5 Si



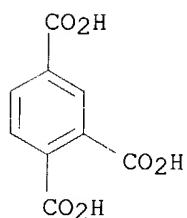
CM 2

CRN 585-07-9
CMF C8 H14 O2



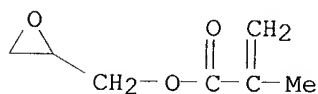
CM 3

CRN 528-44-9
CMF C9 H6 O6



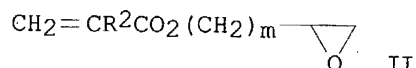
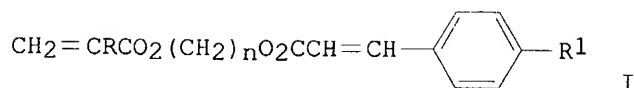
CM 4

CRN 106-91-2
CMF C7 H10 O3



L57 ANSWER 44 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1987:129326 HCAPLUS
DN 106:129326
TI Photosensitive polymer compositions
IN Matsuki, Yasuo; Endo, Masayuki; Miyashita, Satoshi; Matsumoto, Shuichi
PA Japan Synthetic Rubber Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61085421	A2	19860501	JP 1984-206865	19841002
	JP 03071446	B4	19911113		
PRAI	JP 1984-206865		19841002		
GI					



AB The title compns. are prepared by copolymn of the monomers I (R = H, lower alkyl; R¹ = H, lower alkyl, lower alkoxy; n = 2-5) and II (R² = H, lower alkyl; m = 1-5). The compns., which are especially suited for preparation of protective films of color-separation filters for solid-state photosensitive devices, e.g. charged-coupled devices, fulfill the requirements for such protective films and also are easily applied to substrates by spin coating. Glycidyl methacrylate 42.6, 1-methacryloyl-2-cinnamoyloxyethane 26, and ABIN 0.17 g were heated to obtain 28 g copolymer having the ratio glycidyl unit:cinnamoyl unit 77:23 and polystyrene-converted number-average mol. weight 170,000. A filtered solution of

the copolymer was applied to a Si wafer to obtain an extra smooth surface of 1.01 μ thickness. The wafer was baked, UV exposed, developed by immersion in 4.5:1 MEK-iso-PrOH, rinsed with iso-PrOH, and postbaked at 150°. The exposure to 254 nm UV radiation was optimum for obtaining a smooth surface and the max resolution was 30 mJ/cm². A glass plate coated with the layer transmitted >95% light in the 350-800 nm region. The sectioned layer was not liftable with adhesive tape, even after 5 h boiling in H₂O or PhMe. No cracks or color change was observed by 200 h treatment at 200° or by 1000 h irradiation with a halogen lamp. The pencil hardness was 4B. Treatment of the layer at 100° for 30 h in a dye bath (containing Kayanol Milling Red RS-25 and HOAc) did not affect the transmittance in the 400-800 nm region.

IC ICM C08F220-20

ICS C08F220-32

ICA C09D003-58

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 42

ST photocuring polymer color filter protection; photoreceptor solid state **protective layer**

IT Photoimaging compositions and processes
(photopolymer, containing acrylic polymers for **protective layers** in solid-state photosensitive devices)

IT Optical imaging devices
(**electro-**, solid-state, photosensitive acrylic polymer compns. for **protective layers** on color-separation filters in)

IT 107162-90-3 107162-91-4 107162-93-6 107162-94-7
107162-95-8

RL: USES (Uses)

(photocurable compns. containing, for **protective layers** on color-separation filters in solid-state photosensitive devices)

IT 107162-94-7

RL: USES (Uses)

(photocurable compns. containing, for **protective layers**
on color-separation filters in solid-state photosensitive devices)

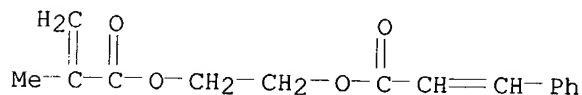
RN 107162-94-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with
oxiranylmethyl 2-methyl-2-propenoate and 2-[(1-oxo-3-phenyl-2-
propenyl)oxy]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 41261-99-8

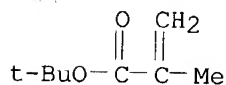
CMF C15 H16 O4



CM 2

CRN 585-07-9

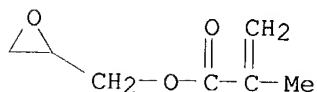
CMF C8 H14 O2



CM 3

CRN 106-91-2

CMF C7 H10 O3



L57 ANSWER 45 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1983:406921 HCAPLUS

DN 99:6921

TI Photo- and **electron** beam-curable coating compositions

PA Nippon Steel Corp., Japan; Toa Gosei Chemical Industry Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57198765	A2	19821206	JP 1981-82849	19810530
	JP 59009583	B4	19840303		
PRAI	JP 1981-82849		19810530		
AB	Photo- and electron beam-curable compns. forming anticorrosive				

blocking-resistant coatings on sheet steel for press fabrication contain (a) compd(s). containing ≥ 2 (meth)acryloyl groups, (b) compd(s). containing 1 (meth)acryloyl group, (c) organic polymer(s) compatible with the a and b components, and (d) a lubricant at a-based (meth)acryloyl group content (based on a + b) 3-60 mol% and (a + b):c:d ratio 90-94:3-20:3-20. These coatings also showed excellent weather resistance, polyurethane topcoating receptivity, and durability during the press fabrication. For example, a UV-curable coating composition comprised bis[2,2-bis(acryloyloxymethyl)butyl]phthalate 1.8, trimethylolpropane triacrylate 1.2, 2-hydroxy-3-phenoxypropyl acrylate 81, maleated rosin 9, Ca stearate 7, 2,2-dimethoxy-2-phenylacetophenone 5, hydroquinone mono-Me ether 0.02, and N-nitrosophenylhydroxylamine Al salt 0.01 part.

IC C09D005-00; C09D003-727

CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 55

ST photocurable acrylic coating steel fabrication; **electron** beam curing acrylic coating; maleated rosin acrylic coating

IT Rosin
RL: USES (Uses)
(maleated, acrylic **coatings** containing, for **protection** of sheet steel for press fabrication)

IT Petroleum resins
RL: USES (Uses)
(aromatic, acrylic **coatings** containing, for **protection** of sheet steel for press fabrication)

IT Coating materials
(**electron** beam-curable, acrylic polymers, for production of sheet steel for press fabrication)

IT 108-31-6D, reaction products with rosin 9011-14-7 86003-79-4
RL: USES (Uses)
(acrylic **coatings** containing, for **protection** of sheet steel for press fabrication)

IT 85947-04-2 85947-05-3 85947-06-4 85947-07-5 85947-08-6
85947-09-7 85947-10-0 **85947-11-1** 85947-12-2 85947-13-3
85947-14-4 85947-15-5 85947-16-6 86112-43-8
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, photo- and **electron** beam-curable, for protection of sheet steel for press fabrication)

IT **85947-11-1**
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, photo- and **electron** beam-curable, for protection of sheet steel for press fabrication)

RN 85947-11-1 HCAPLUS

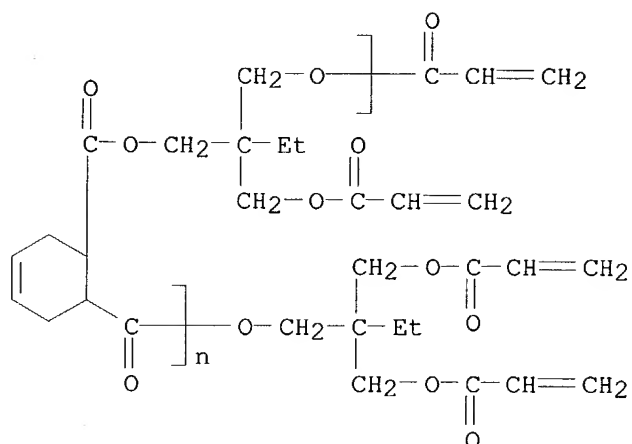
CN 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 1-methyl-2-phenoxyethyl 2-propenoate and α -(1-oxo-2-propenyl)- ω -[2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]butoxy]poly[oxy[2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl]oxycarbonyl-4-cyclohexene-1,2-diylcarbonyl] (9CI) (CA INDEX NAME)

CM 1

CRN 85947-03-1

CMF (C17 H22 O6)n C15 H20 O6

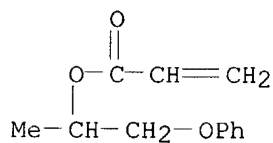
CCI PMS



CM 2

CRN 85874-53-9

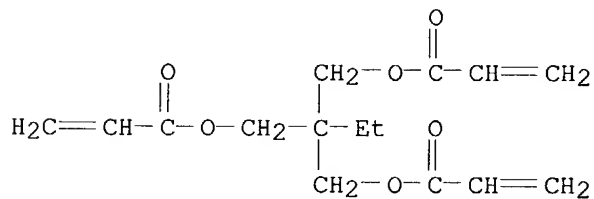
CMF C12 H14 O3



CM 3

CRN 15625-89-5

CMF C15 H20 O6



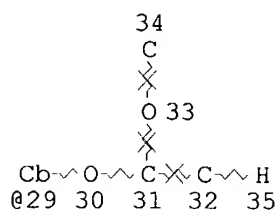
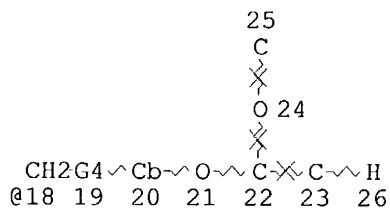
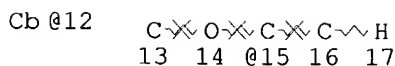
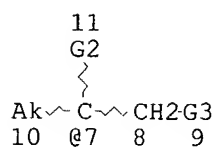
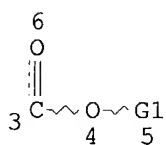
=> => D QUE

L5

L12

SCR 2043

STR



VAR G1=7/15/18/29

VAR G2=H/AK

VAR G3=H/12

REP G4=(0-9) CH2

NODE ATTRIBUTES:

NSPEC	IS RC	AT	13
NSPEC	IS RC	AT	14
NSPEC	IS RC	AT	15
NSPEC	IS RC	AT	16
NSPEC	IS RC	AT	22
NSPEC	IS RC	AT	23
NSPEC	IS RC	AT	24
NSPEC	IS RC	AT	25
NSPEC	IS RC	AT	31
NSPEC	IS RC	AT	32
NSPEC	IS RC	AT	33
NSPEC	IS RC	AT	34

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 31

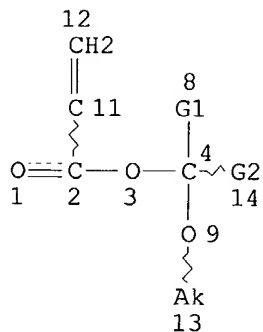
STEREO ATTRIBUTES: NONE

L15 SCR 193 OR 195

L17 21384 SEA FILE=REGISTRY SSS FUL L12 AND L5 AND L15

L39 STR

Ak @7



CH2Ak
@5 6

Ak ~ CH ~ Ak
17 @15 16

subset for

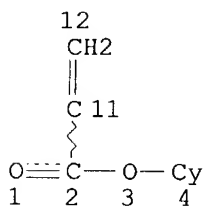
b

VAR G1=7/H
 VAR G2=CH3/5/15
 NODE ATTRIBUTES:
 CONNECT IS E1 RC AT 1
 CONNECT IS E1 RC AT 6
 CONNECT IS E1 RC AT 7
 CONNECT IS E1 RC AT 13
 CONNECT IS E1 RC AT 16
 CONNECT IS E1 RC AT 17
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M1-X6 C AT 6
 ECOUNT IS M1-X6 C AT 7
 ECOUNT IS M1-X6 C AT 13
 ECOUNT IS M1-X6 C AT 16
 ECOUNT IS M1-X6 C AT 17

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

L42 STR



NODE ATTRIBUTES:
 CONNECT IS E1 RC AT 1
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L45 2644 SEA FILE=REGISTRY SUB=L17 SSS FUL L42 OR L39
 L46 1323 SEA FILE=HCAPLUS ABB=ON L45
 L47 5 SEA FILE=HCAPLUS ABB=ON L46 AND PROTECT?(4A)LAYER?
 L61 30 SEA FILE=HCAPLUS ABB=ON L46 AND (DEVICE? OR DEV/RL OR
 ELECTR?/SC,SX,AB,BI) AND PROTECT?
 L62 7 SEA FILE=HCAPLUS ABB=ON L61 AND COAT?
 L63 12 SEA FILE=HCAPLUS ABB=ON L47 OR L62

=> D L63 BIB ABS HITIND HITSTR 1-12

L63 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:766138 HCAPLUS
 DN 137:302210
 TI Light-sensitive resin composition for forming patterned layers
 such as **protecting layers** in electric devices
 IN Kodemura, Junji; Kawahara, Kohei

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

12 CA references with utility

PA Nippon Zeon Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002296780	A2	20021009	JP 2001-100586	20010330
PRAI	JP 2001-100586		20010330		
AB	The title composition contains a polymer made of cyclic olefins, a controlling agent for solubility of the resin, a photoacid generator, and a crosslinking agent, wherein the polymer is prepared by ring opening polymerization of cyclic olefins. The composition provides fine patterned layer of the low dielec. constant and degas property along with the good material characteristics.				
IC	ICM G03F007-039 ICS C08K005-00; C08L045-00; C08L065-00; C08L101-02; G03F007-40; H01L021-027				
CC	74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 76				
ST	light sensitive resin compn patterned layer protecting elec				
IT	Dielectric films Light-sensitive materials Photoresists Semiconductor device fabrication (light-sensitive resin composition for patterned layers such as protecting layers in elec. devices)				
IT	661-20-1D, Isocyanate, derivative 29570-58-9, Dipentaerythritol hexaacrylate RL: CAT (Catalyst use); USES (Uses) (crosslinking agent; light-sensitive resin composition for patterned layers such as protecting layers in elec. devices)				
IT	108-31-6DP, Maleic anhydride, reaction products with 8-ethyltetracyclo[4.4.0.12,5.17,10]dodec-3-ene homopolymer 134490-17-8DP, 8-Ethyltetracyclo[4.4.0.12,5.17,10]dodec-3-ene homopolymer, hydrogenated, reaction products with maleic anhydride 470459-43-9DP, hydrogenated, hydrolyzed RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (light-sensitive resin composition for patterned layers such as protecting layers in elec. devices)				
IT	17111-95-4D, triaryl, derivative RL: CAT (Catalyst use); USES (Uses) (photopolymn. initiator; light-sensitive resin composition for patterned layers such as protecting layers in elec. devices)				
IT	194991-29-2P, Tert-butyl methacrylate-methacrylic acid-Isobornyl methacrylate copolymer RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (resin solubility-controlling agent; light-sensitive resin composition for patterned layers such as protecting layers in elec. devices)				
IT	194991-29-2P, Tert-butyl methacrylate-methacrylic acid-Isobornyl methacrylate copolymer RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				

(resin solubility-controlling agent; light-sensitive resin composition for patterned **layers** such as **protecting layers** in elec. devices)

RN 194991-29-2 HCAPLUS

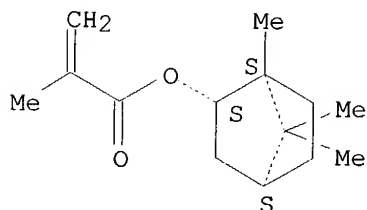
CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate and rel-(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7534-94-3

CMF C14 H22 O2

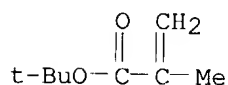
Relative stereochemistry.



CM 2

CRN 585-07-9

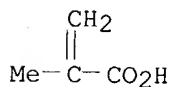
CMF C8 H14 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



L63 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:624849 HCAPLUS

DN 137:338218

TI Controlled synthesis of self-cross-linkable polymers for nano architecture

AU Tsujii, Yoshinobu; Yuuichi, Hirose; Ejaz, Muhammad; Fukuda, Takeshi; Ishidoya, Masahiro

CS Institute for Chemical Research, Kyoto University, Uji, Kyoto, 611-0011, Japan

SO Polymer Preprints (American Chemical Society, Division of Polymer

Chemistry) (2002), 43(2), 317-318
 CODEN: ACPPAY; ISSN: 0032-3934

PB American Chemical Society, Division of Polymer Chemistry
 DT Journal; (computer optical disk)
 LA English

AB The atom transfer radical polymerization (ATRP) technique was successfully applied to the synthesis of well-defined, self-cross-linkable random/block polymers containing the random-copolymer segment of 1-propoxyethyl methacrylate (PEMA), glycidyl methacrylate (GMA) and Me methacrylate (MMA). The crosslinking proceeded via two steps: the hemiacetal ester group of PEMA is thermally deprotected into the carboxyl group, which readily reacts with the epoxy group of GMA, forming a covalent bond. The GPC and AFM analyses revealed that the block polymers of the random-copolymer and PMMA segments produced a nano particle in solution, since the PMMA segment served as a **protecting layer** limiting the gel size to the nm scale. This proposes a versatile and facile route to a well-defined nano particle. High-d. polyelectrolyte brushes with and without cross-links were also successfully prepared by the surface-initiated ATRP of PEMA with and without GMA followed by deprotection. They were shown to have structures and properties quite different from moderately dense brushes previously studied.

CC 35-4 (Chemistry of Synthetic High Polymers)

IT **474070-65-ODP**, Glycidyl methacrylate-1-propoxyethyl methacrylate graft copolymer, deprotected

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (crosslinkable, polyelectrolyte brush; controlled synthesis of self-crosslinkable methacrylate copolymers by living ATRP)

IT **474070-64-9P**, Glycidyl methacrylate-methyl methacrylate-1-propoxyethyl methacrylate copolymer

RL: SPN (Synthetic preparation); PREP (Preparation)
 (crosslinkable; controlled synthesis of self-crosslinkable methacrylate copolymers by living ATRP)

IT **474070-67-2DP**, deprotected

RL: SPN (Synthetic preparation); PREP (Preparation)
 (grafted onto modified silicon wafer; controlled synthesis of self-crosslinkable methacrylate copolymers by living ATRP)

IT **474070-65-ODP**, Glycidyl methacrylate-1-propoxyethyl methacrylate graft copolymer, deprotected

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (crosslinkable, polyelectrolyte brush; controlled synthesis of self-crosslinkable methacrylate copolymers by living ATRP)

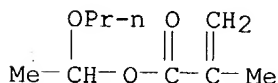
RN 474070-65-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with 1-propoxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

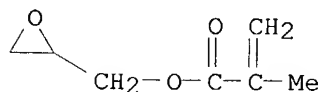
CRN 179630-36-5

CMF C9 H16 O3



CM 2

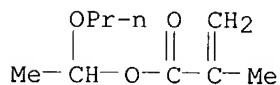
CRN 106-91-2
CMF C7 H10 O3



IT **474070-64-9P**, Glycidyl methacrylate-methyl methacrylate-1-propoxyethyl methacrylate copolymer
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (crosslinkable; controlled synthesis of self-crosslinkable methacrylate copolymers by living ATRP)
 RN 474070-64-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate and 1-propoxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

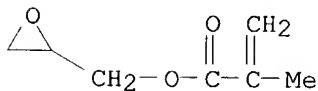
CM 1

CRN 179630-36-5
CMF C9 H16 O3



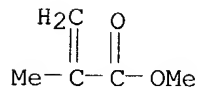
CM 2

CRN 106-91-2
CMF C7 H10 O3



CM 3

CRN 80-62-6
CMF C5 H8 O2



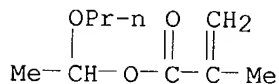
IT **474070-67-2DP**, deprotected
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (grafted onto modified silicon wafer; controlled synthesis of self-crosslinkable methacrylate copolymers by living ATRP)
 RN 474070-67-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-propoxyethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 179630-36-5

CMF C9 H16 O3



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:242793 HCAPLUS

DN 134:282210

TI **Protective coating** compositions for use on color filters of LCD devices

IN Kazama, Shingo; Yamamoto, Hiroyuki; Sasaki, Takeaki; Sato, Hiroshi; Sato, Atsushi; Ishidoya, Masahiro

PA Nippon Steel Chemical Co., Ltd., Japan; Nippon Oil and Fats Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001091732	A2	20010406	JP 2000-215820	20000717
PRAI	JP 1999-207782	A	19990722		

AB The compns. giving **coat** films with good planarization and masking effects for covering the roughness of color filters printed with inks and black matrix, etc., comprise polyepoxy compds., **protected** polycarboxylic acids having **protective** groups derived from vinyl ethers or vinyl thio ethers, and thermal latent curing catalysts. Thus, dissolving ESF 300 [9,9-bis(4-hydroxyphenyl)fluorene diglycidyl ether polymer] 8 and EHPE 3150 (alicyclic epoxy resin) 2 and EOCN 1020 (o-cresol novolak epoxy resin) 15 in cyclohexanol 37 and diethylene glycol di-Me ether 52, combining the resulting solution with a Pr vinyl ether-blocked 1,2,4-trimellitic acid 15.1, a latent curing catalyst (made from Zn 2-ethylhexanoate and triethanolamine) 0.12, Sila-Ace S 510 (glycidoxypropyltrimethoxysilane) 1.4 and Fluorad FC 430 (surfactant) 0.12 g, spin **coating** on the surface of a dummy color filter, pre-baking at 80° for 10 min and post baking at 200° for 60 min gave a **coated** film with good planarization property.

IC ICM G02B005-20

ICS C08G059-42; C09D007-12; C09D163-00

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 74, 76

ST surface planarization **coating** compn color filter LCD device; polyepoxy resin surface planarization **coating** latent curing catalyst; **protected** polycarboxylic acid hardener polyepoxy resin **coating**

IT **Coating** materials

Liquid crystal displays

Optical filters

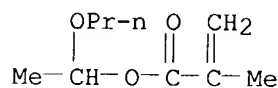
(**protective coating** compns. for use on color filters of LCD devices)

- IT 89-05-4DP, Pyromellitic acid, esters with vinyl ethers 528-44-9DP, Trimellitic acid, esters with vinyl ethers 1703-58-8DP, 1,2,3,4-Butanetetracarboxylic acid, esters with vinyl ethers 332421-66-6P, 2-Ethylhexyl methacrylate-glycidyl methacrylate-1-propoxyethyl methacrylate copolymer
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(blocked curing agents; **protective coating** compns. for use on color filters of LCD devices)
- IT 102-71-6D, Triethanolamine, compound with Zn ethylhexanoate 105-59-9D, Methyl-diethanolamine, compound with Zn ethylhexanoate 108-01-0D, Dimethylethanolamine, compound with Zn ethylhexanoate 109-02-4D, N-Methylmorpholine, compound with Zn ethylhexanoate 136-53-8D, Zinc 2-ethylhexanoate, compound with triethanolamine
RL: CAT (Catalyst use); USES (Uses)
(latent curing catalyst; **protective coating** compns. for use on color filters of LCD devices)
- IT 332421-61-1, 9,9-Bis(4-hydroxyphenyl)fluorene diglycidyl ether-EHPE 3150-EOCN 1020-trimellitic acid copolymer 332421-62-2 332421-63-3 332421-64-4 332421-65-5, 9,9-Bis(4-hydroxyphenyl)fluorene diglycidyl ether-EHPE 3150-EOCN 1020-2-ethylhexyl methacrylate-glycidyl methacrylate-methacrylic acid copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(planarization **coating**; **protective coating** compns. for use on color filters of LCD devices)
- IT 764-47-6DP, Propyl vinyl ether, esters with polycarboxylic acids 926-65-8DP, Iso-propyl vinyl ether, esters with polycarboxylic acids 2182-55-0DP, Cyclohexyl vinyl ether, esters with polycarboxylic acids
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(**protective coating** compns. for use on color filters of LCD devices)
- IT 332421-66-6P, 2-Ethylhexyl methacrylate-glycidyl methacrylate-1-propoxyethyl methacrylate copolymer
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(blocked curing agents; **protective coating** compns. for use on color filters of LCD devices)
- RN 332421-66-6 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate and 1-propoxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

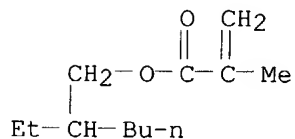
CRN 179630-36-5

CMF C9 H16 O3



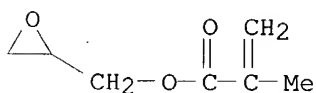
CM 2

CRN 688-84-6
CMF C12 H22 O2



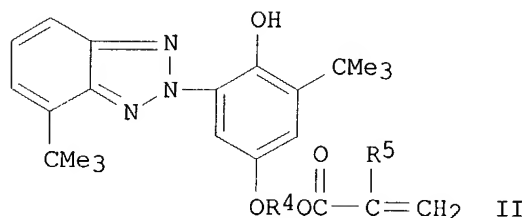
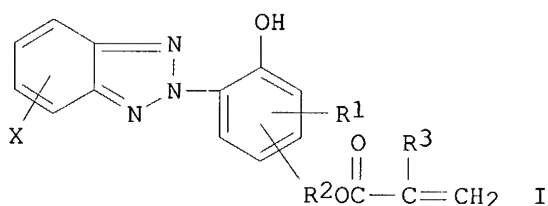
CM 3

CRN 106-91-2
CMF C7 H10 O3



L63 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:249691 HCAPLUS
DN 132:280186
TI UV-absorbing resin materials with good antisoiling property and weather resistance
IN Noda, Nobuhisa; Nishida, Toshifumi; Aoyama, Takahiro
PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2000108259	A2	20000418	JP 1998-285696	19981007
PRAI	JP 1998-285696		19981007		
GI					



- AB The materials have **protective layers** containing (a) organic polymer-containing inorg. microparticles and (b) polymers from monomers containing
- benzotriazines I (R1 = H, C1-8 hydrocarbyl; R2 = lower alkyl; R3 = H, Me; X = H, halo, C1-8 hydrocarbyl, lower alkoxy, cyano, NO2) and/or II (R4 = lower alkylene; R5 = H, Me). Thus, a polycarbonate plate was primed with 40:30:15:15 cyclohexyl methacrylate-Bu acrylate-Bu methacrylate-imide acrylate copolymer and covered with a **protective layer** comprising 30:20:29:10:10:1 2-[2'-hydroxy-5'-(methacryloyloxyethyl)phenyl]-2H-benzotriazole-Me methacrylate-Bu acrylate-Bu methacrylate-2-hydroxyethyl methacrylate-methacrylic acid copolymer, 10 phr composite particles [manufactured from 20:80:80:20 tetramethoxysilane-γ-methacryloyloxypropyltrimethoxysilane copolymer-Me methacrylate-Et acrylate-2-hydroxyethyl methacrylate copolymer and (MeO)4Si], Duranate MF-D 60X (blocked isocyanate), and leveling agent to give a test piece showing long-lasting antisoiling property, weather resistance, and surface hardness 3H.
- IC ICM B32B027-30
- ICS B05D005-00; B05D007-04; B05D007-24; C09D005-00; C09D005-32; C09D007-12; C09D139-04
- CC 38-3 (Plastics Fabrication and Uses)
- Section cross-reference(s): 42
- ST polycarbonate UV absorbing **protective layer** antisoiling; weather resistance polycarbonate UV absorbing coating; benzotriazole polymer UV absorbing coating polycarbonate; silicate composite particle UV absorbing plastic
- IT Coating materials
(antisoiling, weather-resistant; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)
- IT Polycarbonates, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(base materials; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)
- IT Ceramers
(particles in **protective layers**; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)
- IT UV stabilizers

(plastics having UV-absorbing **protective layers**
with good antisoiling property and weather resistance)

IT Epoxy resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(primers; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)

IT 9002-86-2, Poly(vinyl chloride) 9011-14-7, Poly(methyl methacrylate)
193766-46-0, Toughlon IV 2500
RL: TEM (Technical or engineered material use); USES (Uses)
(base material; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)

IT 169378-64-7P, Ethyl acrylate-2-hydroxyethyl methacrylate-γ-methacryloyloxypropyltrimethoxysilane-methyl methacrylate-tetramethoxysilane copolymer 175649-21-5P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
(particles in **protective layers**; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)

IT 25068-38-6, Epikote 828 159131-89-2, Polymet NK 380 263384-58-3
RL: TEM (Technical or engineered material use); USES (Uses)
(primer; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)

IT 159301-33-4D, polymers with (meth)acrylates
RL: TEM (Technical or engineered material use); USES (Uses)
(primers; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)

IT 263384-54-9P 263384-55-0P 263384-56-1P 263384-57-2P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**protective layer**; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)

IT 263384-54-9P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**protective layer**; plastics having UV-absorbing **protective layers** with good antisoiling property and weather resistance)

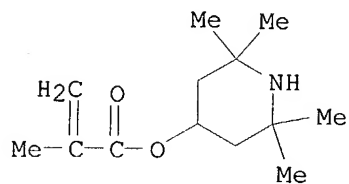
RN 263384-54-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, cyclohexyl 2-methyl-2-propenoate, 1,1-dimethylethyl 2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and 2,2,6,6-tetramethyl-4-piperidinyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 31582-45-3

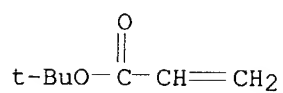
CMF C13 H23 N O2



CM 2

CRN 1663-39-4

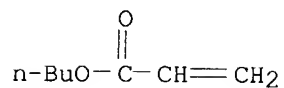
CMF C7 H12 O2



CM 3

CRN 141-32-2

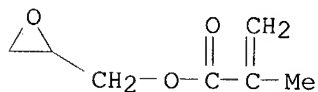
CMF C7 H12 O2



CM 4

CRN 106-91-2

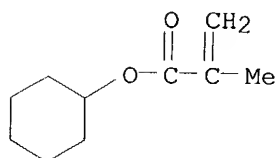
CMF C7 H10 O3



CM 5

CRN 101-43-9

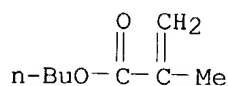
CMF C10 H16 O2



CM 6

CRN 97-88-1

CMF C8 H14 O2



L63 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:238782 HCAPLUS

DN 130:318601

TI Photosensitive resin composition, pattern formation using same, and manufacture of **electronic device**

IN Maegawa, Yasunari; Mitsuwa, Takao; Ueno, Takumi; Okabe, Yoshiaki

PA Hitachi, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11102065	A2	19990413	JP 1997-263278	19970929
PRAI	JP 1997-263278		19970929		

AB A radiation-sensitive resin composition contains (a) a carboxyl polymer having an alicyclic hydrocarbon structure, (b) a radiation-sensitive acid-generator, and (c) a compound R¹NHC(:A¹)NHR² (I; A¹ = the group VI atom; R¹, R² = C3-50 organic group, ≥1 of the groups has OH group **protected** with a group which can be released by the action of acid and/or CO₂H group) and/or a compound R³N:C(NH₂)A²R⁴ (II; A² = O, S, N; R³, R⁴ = C3-40 organic group, ≥1 of the groups has OH group **protected** with a group which can be released by the action of acid and/or CO₂H group). The composition may contain (1) (a) and a radiation-sensitive compound R⁵NHC(:A³)NHR⁶ (III; A³ = the group VI atom; R⁵, R⁶ = C3-50 organic group) and/or a radiation-sensitive compound R⁷N:C(NH₂)A⁴R⁸ (IV; A⁴ = O, S, N; R⁷, R⁸ = C3- 40 organic group), (2) (b), I and/or II, and (d) a carboxyl polymer having an alicyclic hydrocarbon structure and organic groups which can be hydrolyzed with alkaline developing solns. or (3) III and/or IV and (d). The composition is **coated** on a substrate, irradiated through a photomask with an **electromagnetic** wave, and developed with an alkaline developing solution to form a pattern. A method. of manufacturing an **electronic device** is also claimed, comprising the above patterning process. The composition shows high transparency to far UV regions including ArF excimer lasers of wavelength 193 nm and improved dry etch resistance and developability.

IC ICM G03F007-004
ICS G03F007-004; G03F007-039; H01L021-027; H01L021-312

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 76

IT 28551-72-6P, 2-Norbornene-5-carboxylic acid-maleic anhydride copolymer
181531-12-4P, Methacrylic acid-2-methyl-2-adamantyl methacrylate copolymer
186585-88-6P, tert-Butyl methacrylate-methacrylic acid-2-methyl-2-adamantyl methacrylate copolymer 210686-57-0P
211565-45-6P, tert-Butyl 5-norbornene-2-carboxylate-5-norbornene-2-carboxylic acid-maleic anhydride copolymer 223524-93-4P 223524-95-6P
223524-98-9P 223525-00-6P, tert-Butyl 5-norbornene-2-carboxylate-5-norbornene-2-carboxylic acid-cyanomethyl methacrylate copolymer
223525-03-9P, Cyanomethyl methacrylate-methacrylic acid-2-methyl-2-adamantyl methacrylate copolymer 223525-06-2P, Cyanomethyl methacrylate-5-Norbornene-2-carboxylic acid copolymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoresists composition containing urea compound and carboxyl polymer having alicyclic group)

IT **186585-88-6P**, tert-Butyl methacrylate-methacrylic acid-2-methyl-2-adamantyl methacrylate copolymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoresists composition containing urea compound and carboxyl polymer having alicyclic group)

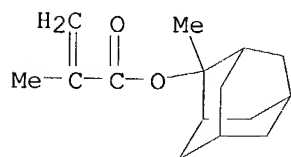
RN 186585-88-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

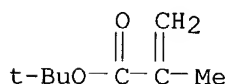
CMF C15 H22 O2



CM 2

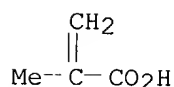
CRN 585-07-9

CMF C8 H14 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



L63 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:335135 HCAPLUS

DN 129:60585

TI Resist composition, resist pattern formation, and production of semiconductor **device**

IN Nozaki, Koji; Yano, Akira; Watanabe, Keiji; Namiki, Takahisa; Igarashi, Yoshikazu

PA Fujitsu Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10133377	A2	19980522	JP 1996-288524	19961030
	JP 3297324	B2	20020702		
	US 5910392	A	19990608	US 1997-882734	19970626
	TW 434452	B	20010516	TW 1997-86110419	19970722
PRAI	JP 1996-288524	A	19961030		

AB In the aqueous basic solution-developable resist composition containing a base resin and a

photoacid-generating agent that generates acid upon irradiation, the resin is an aqueous basic solution-insol. polymer comprising a monomer unit containing carboxylic acid or phenol **protected** with an acid-releasable **protective** group selected from ester, ether, acetal, and ketal groups and another unit having a cyclic carbonate part-containing ester group or ether group and the polymer can be soluble in aqueous basic solns. when the **protective** group of the former unit is released by the action of acid. The composition is **coated** on a substrate, selectively exposed to radiation, and developed with an aqueous basic solution to form a resist pattern, followed by etching the substrate using the pattern as a mask to give a semiconductor **device**. The composition shows high sensitivity in short wavelength regions and provides high resolution patterns with high transparency, dry etch resistance, and adhesion to substrates.

IC ICM G03F007-039

ICS G03F007-039; G03F007-004; G03F007-40; H01L021-027; H01L021-3065

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

ST resist polymer **protected** phenol group; carboxylic acid group **protected** polymer resist; cyclic carbonate group polymer resist; semiconductor **device** manuf resist

IT Resists

Semiconductor **devices**

(resist composition containing polymer having cyclic carbonate group useful for

manufacture of semiconductor **device**)
 IT 208727-84-8P, Glycidyl methacrylate-4-vinylphenol copolymer carbonate
 208727-85-9P, Glycidyl methacrylate-tetrahydropyranyl methacrylate
 copolymer carbonate 208727-86-0P, Glycidyl methacrylate-2-methyl-2-
 adamantyl methacrylate copolymer carbonate 208727-87-1P, Glycidyl
 methacrylate-3-oxocyclohexyl methacrylate copolymer carbonate
 208727-88-2P, Glycidyl methacrylate-mevalonic lactone methacrylate
 copolymer carbonate 208727-89-3P, 2-Cyclohexenyl methacrylate-mevalonic
 lactone methacrylate copolymer carbonate 208727-90-6P, Glycidyl
 methacrylate-2-methyl-2-bicyclo [2,2,2]octane methacrylate copolymer
 carbonate
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (resist composition containing polymer having cyclic carbonate group useful

for
 manufacture of semiconductor **device**)
 IT 96-48-0, γ -Butyrolactone 97-64-3, Ethyl lactate 110-43-0, Methyl
 amyl ketone 123-86-4, Butyl acetate 763-69-9, Ethyl-3-ethoxy
 propionate 3852-09-3, Methyl-3-methoxy propionate 84540-57-8,
 Propylene glycol methyl ether acetate
 RL: NUU (Other use, unclassified); USES (Uses)
 (solvent; resist composition containing polymer having cyclic carbonate

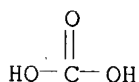
group
 useful for manufacture of semiconductor **device**)
 IT 208727-85-9P, Glycidyl methacrylate-tetrahydropyranyl methacrylate
 copolymer carbonate
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (resist composition containing polymer having cyclic carbonate group useful

for
 manufacture of semiconductor **device**)
 RN 208727-85-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with
 tetrahydro-2H-pyran-2-yl 2-methyl-2-propenoate, carbonate (9CI) (CA INDEX
 NAME)

CM 1

CRN 463-79-6

CMF C H2 O3



CM 2

CRN 208665-85-4

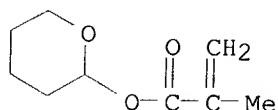
CMF (C9 H14 O3 . C7 H10 O3)x

CCI PMS

CM 3

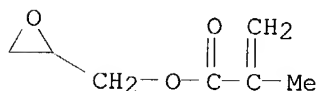
CRN 52858-59-0

CMF C9 H14 O3



CM 4

CRN 106-91-2
CMF C7 H10 O3



L63 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:184468 HCAPLUS

DN 128:288337

TI Chemical amplified resist composition and resist pattern formation using it

IN Takahashi, Makoto; Takechi, Satoshi

PA Fujitsu Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10078658	A2	19980324	JP 1996-235247	19960905
PRAI	JP 1996-235247		19960905		

OS MARPAT 128:288337

AB In the title composition comprising an acid-sensitive compound having a structural unit having a **protected** alkali-soluble group of which the **protective** group is released by the action of acid so that the compound becomes alkali-soluble and an acid-generating agent that generates an acid upon exposure to a radiation, the acid-sensitive compound is a (co)polymer having alicyclic hydrocarbon groups in its mol. and the acid-generating agent is a compound R1CONXCOR2 [R1, R2 = (substituted) alkyl, the alkyl may form a ring along with the N atom; X = halo, F, BF4, BF6, PF6, AsF6, SbF6, CF3SO3, ClO4, organic sulfonic acid anion]. The composition is **coated** on a substrate, selectively exposed to a radiation, and developed to form a resist pattern. The process may involve steps of pre-baking the resist **coating** before exposure and post-baking it after exposure and before development. The composition shows high transparency and dry etch resistance and is useful for manufacture of semiconductor **devices**.

IC ICM G03F007-039

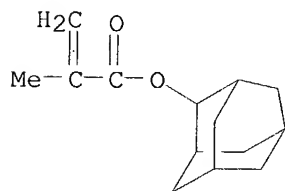
ICS G03F007-004; G03F007-38; G03F007-40; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

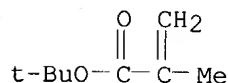
Section cross-reference(s): 38, 76

ST chem amplification resist semiconductor **device**; urea deriv acid

generator resist; alicyclic hydrocarbon alkali soluble polymer resist
 IT Semiconductor **devices**
 (chemical amplification-type resist composition for manufacture of semiconductor device)
 IT 34684-40-7 83697-56-7 85342-62-7 133710-62-0 177080-68-1
 181531-13-5 **205449-52-1** 205449-53-2 205449-54-3
 205828-76-8 205828-77-9
 RL: TEM (Technical or engineered material use); USES (Uses)
 (chemical amplification-type resist composition containing polymer having alicyclic hydrocarbon group and urea derivative acid generator)
 IT **205449-52-1**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (chemical amplification-type resist composition containing polymer having alicyclic hydrocarbon group and urea derivative acid generator)
 RN 205449-52-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with tricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 133682-15-2
 CMF C14 H20 O2



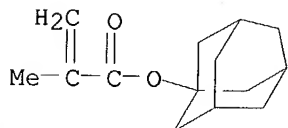
CM 2
 CRN 585-07-9
 CMF C8 H14 O2



L63 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1996:618757 HCAPLUS
 DN 125:261252
 TI Resist pattern forming method for manufacturing semiconductor integrated circuits
 IN Takahashi, Makoto; Takechi, Satoshi
 PA Fujitsu Ltd., Japan
 SO PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DT Patent

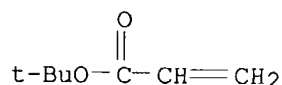
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9624888	A1	19960815	WO 1996-JP295	19960209
	W: KR, US				
	JP 08220774	A2	19960830	JP 1995-23053	19950210
	JP 3429592	B2	20030722		
	US 5879851	A	19990309	US 1996-718515	19961008
PRAI	JP 1995-23053	U	19950210		
	WO 1996-JP295	W	19960209		
OS	MARPAT 125:261252				
AB	A resist pattern forming method comprising coating an untreated substrate with a resist comprising a polymer or copolymer containing repeating units which have protected alkali-soluble groups and can permit the protective groups to be eliminated by an acid so as to render the compound alkali-soluble and an acid generator capable of generating an acid upon exposure to a radiation, prebaking the coating , selectively exposing the prebaked coating to a radiation, and developing the exposed coating with a developer solution containing an aqueous or alc. solution of a particular ammonium or morpholine compound This method can reduce the occurrence of cracking or separation of a pattern during the formation of a resist pattern.				
IC	ICM G03F007-32				
	ICS G03F007-029; G03F007-004				
CC	74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)				
	Section cross-reference(s): 76				
IT	Electric circuits				
	(integrated, resist pattern forming method for manufacturing semiconductor integrated circuits)				
IT	158602-69-8 169223-75-0				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(resist composition for manufacturing semiconductor integrated circuits)				
IT	169223-75-0				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(resist composition for manufacturing semiconductor integrated circuits)				
RN	169223-75-0 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, tricyclo[3.3.1.1 ^{3,7}]dec-1-yl ester, polymer with 1,1-dimethylethyl 2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	16887-36-8				
CMF	C14 H20 O2				

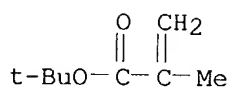


CM 2

CRN 1663-39-4
CMF C7 H12 O2

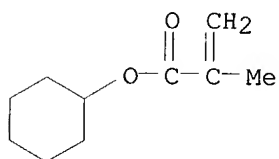


I63 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1996:336094 HCAPLUS
 DN 125:127514
 TI Surface-activated photopolymer microgels
 AU Sasa, Nobumasa; Yamaoka, Tsuguo
 CS Dep. Image Sci., Chiba Univ., Chiba, 263, Japan
 SO Advanced Materials (Weinheim, Germany) (1994), 6(5), 417-21
 CODEN: ADVMEW; ISSN: 0935-9648
 PB VCH
 DT Journal
 LA English
 AB The prepare of surface-activated photopolymer microgels and their effect on the polymerization rate and the sensitivity are described. A series of microgels were prepared by copolymn. of styrene, chloromethylstyrene, and divinylbenzene, and then the surfaces of the microgel particles were modified by reacting them with N,N-dimethylbenzylamine, tri-n-butylamine, or N,N-dimethylaminoethylmethacrylate. TEM photographs of the microgels are shown. Examples are given of applications of microgel-based polymers as offset printing plates and photog. film.
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 IT 179731-53-4, Tert-Butyl methacrylate-cyclohexyl methacrylate-methacrylic acid-methyl methacrylate copolymer
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (HSP 621; for comparison of photosensitivity with surface-activated photopolymer microgels)
 IT 9002-89-5, Poly(vinyl alcohol)
 RL: NUU (Other use, unclassified); USES (Uses)
 (protective layer for photosensitive composition)
 IT 179731-53-4, Tert-Butyl methacrylate-cyclohexyl methacrylate-methacrylic acid-methyl methacrylate copolymer
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (HSP 621; for comparison of photosensitivity with surface-activated photopolymer microgels)
 RN 179731-53-4 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with cyclohexyl 2-methyl-2-propenoate, 1,1-dimethylethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 585-07-9
 CMF C8 H14 O2



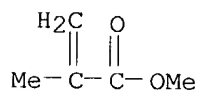
CM 2

CRN 101-43-9
CMF C10 H16 O2



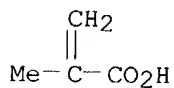
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2



L63 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:315242 HCAPLUS
DN 124:356287
TI Top coat layer for shoot-and-run printing plate material
IN Gardner, James P., Jr.; Johnson, Richard A.; Stulc, Leonard J.; Vogel, Dennis E.
PA Minnesota Mining and Manufacturing Co., USA
SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

PI	EP 703499	A1	19960327	EP 1995-402129	19950921
	EP 703499	B1	20020320		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	US 5506090	A	19960409	US 1994-311510	19940923
	JP 08114922	A2	19960507	JP 1995-238253	19950918
	US 5939237	A	19990817	US 1997-960175	19971029
PRAI	US 1994-311510	A	19940923		
	US 1995-539329	B1	19951004		

AB A no-process printing plate-forming photosensitive article having a **protective** top coat **layer** is described. The top coat layer may be a water-soluble or -dispersible polymer, sol, salt, or mixture thereof. The **protective** top coat **layer** may provide the no-process printing plate with protection from contamination during handling, improved suppression of odors during imaging, and improved roll-up performance on press. The hydrophilic protective top coat is removed on press by action of a fountain solution and/or ink.

IC ICM G03F007-11
ICS B41C001-10; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **52858-58-9P**, Poly(tetrahydropyran-2-yl acrylate)
52858-60-3P, Poly(tetrahydropyran-2-yl methacrylate)
133840-24-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in photosensitive materials for lithog. plate manufacture)

IT **52858-58-9P**, Poly(tetrahydropyran-2-yl acrylate)
52858-60-3P, Poly(tetrahydropyran-2-yl methacrylate)
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in photosensitive materials for lithog. plate manufacture)

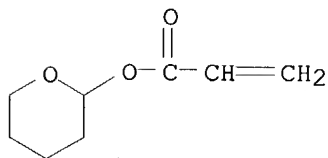
RN 52858-58-9 HCAPLUS

CN 2-Propenoic acid, tetrahydro-2H-pyran-2-yl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 52858-57-8

CMF C8 H12 O3



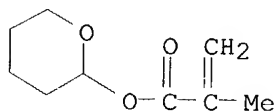
RN 52858-60-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, tetrahydro-2H-pyran-2-yl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 52858-59-0

CMF C9 H14 O3



L63 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1991:494512 HCAPLUS
 DN 115:94512
 TI UV- and **electron** beam-curable acrylic polymer **coating**
 compositions
 IN Uchiyama, Hiroshi; Nishiyama, Shizuo
 PA E. C. Chemical Industry Co., Ltd., Japan; New Japan Chemical Co., Ltd.
 SO Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03052908	A2	19910307	JP 1989-184778	19890719
	JP 2869796	B2	19990310		
PRAI	JP 1989-184778		19890719		
AB	The title compns., useful for protection of acrylic polymer and polycarbonate sheets, contain 4,4'-isopropylidenedicyclohexanol dimethacrylate (I) or diacrylate, reactive diluents, and photochem. curing agents. Thus, a mixture of I 50, Me methacrylate 25, 1,3-butanediol dimethacrylate 23, and 2-hydroxy-2-methyl-1-phenyl-1-propanone 2 parts was cast on an acrylic polymer sheet and cured by UV to give a film with pencil hardness 7H and good adhesion; vs. 5H and extremely poor, resp., with a polyester acrylate in place of I.				
IC	ICM C08F220-20				
	ICS C08F002-48; C08F220-14; C08F220-28				
ICA	C09D004-02				
CC	42-7 (Coatings, Inks, and Related Products)				
ST	isopropylidenedicyclohexanol methacrylate coating ; UV curable coating plastic; electron beam curable coating ; reactive diluent coating radiocurable; acrylate isopropylidenedicyclohexanol coating				
IT	Acrylic polymers, uses and miscellaneous Polycarbonates, uses and miscellaneous RL: USES (Uses) (sheets, radiocurable coatings for)				
IT	Coating materials (radiation-curable, isopropylidenedicyclohexylene (meth)acrylate and reactive diluents, for protection of plastic sheets)				
IT	80-62-6D, Methyl methacrylate, polymers with isopropylidenedicyclohexylene methacrylate, butylene methacrylate and urethane acrylates 1189-08-8D, 1,3-Butylene glycol dimethacrylate, polymers with isopropylidenedicyclohexylene methacrylate, Me methacrylate and urethane acrylates 39664-33-0D, polymers with methacrylates and urethane acrylates 135670-74-5 135670-75-6 RL: TEM (Technical or engineered material use); USES (Uses) (coatings , radiocurable, for protection of plastic sheets)				

IT 135670-74-5

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, radiocurable, for protection of plastic sheets)

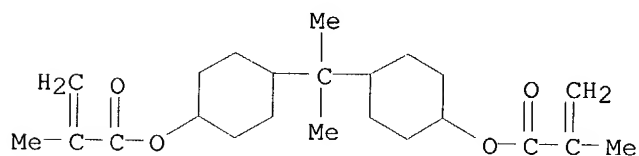
RN 135670-74-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)di-4,1-cyclohexanediyl ester, polymer with methyl 2-methyl-2-propenoate and 1-methyl-1,3-propanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 39664-33-0

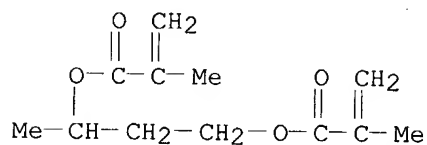
CMF C23 H36 O4



CM 2

CRN 1189-08-8

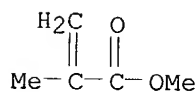
CMF C12 H18 O4



CM 3

CRN 80-62-6

CMF C5 H8 O2



L63 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1979:130680 HCAPLUS

DN 90:130680

TI Photosensitive resin compositions

IN Tsukada, Katsushige; Hayashi, Nobuyuki; Yamada, Hideo; Ishimaru, Toshiaki; Kadomaru, Hajime

PA Hitachi Chemical Co., Ltd., Japan

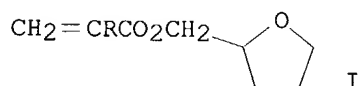
SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53122420	A2	19781025	JP 1977-37279	19770331
	JP 56003539	B4	19810126		
PRAI	JP 1977-37279		19770331		
GI					



- AB Photosensitive resin compns. contain (1) a linear polymer having tetrahydrofurfuryl, OH, and phosphoric acid derivative type groups on the side chains; (2) a photopolymerizable unsatd. compound having ≥ 2 end ethylenic groups; and (3) a photopolymer. initiator. The linear polymer is preferably prepared from I (R = H, halogen, lower alkyl), CH₂:CRCO₂ZC(OH)R₁R₂ [R = H, halogen, lower alkyl; Z = (CH₂)_n, (CH₂CHR₁O)_nCH₂, (n = 1-20); R₁ = H, lower alkyl, halogenated lower alkyl; R₂ = H, lower alkyl, CH₂OR₁], CH₂:CRCO₂(CH₂CHR₁O)_nPO(OH)(OR₃) [R = H, halogen, lower alkyl; n = 1-21; R₁ = H, lower alkyl, halogenated lower alkyl; R₃ = H, lower alkyl], and optionally other vinyl compds. The photosensitive resin compns. are especially useful for forming **protective coatings** for printed circuits and also as solder-resists. Thus, tetrahydrofurfuryl methacrylate-2-hydroxyethyl methacrylate-methacryloyloxyethyl dihydrogen phosphate-Me methacrylate copolymer (10:2:0.1:88 weight ratio) 50, pentaerythritol triacrylate 30, 2,2-bis(4-methacryloxyethoxyphenyl)propane 15, benzophenone 2.7, Michler's ketone 0.3, p-methoxyphenol 0.5, and MeCOEt 120 parts were mixed to give a photosensitive resin composition which was useful as a solder resist.
- IC G03C001-68
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic Processes)
Section cross-reference(s): 42, 76
- ST photosensitive resin solder resist; printed circuit **coating**
photosensitive resin; hydrofurfuryl methacrylate copolymer photosensitive compn
- IT **Electric circuits**
(printed, **protective coatings** for, photosensitive compns. containing tetrahydrofurfuryl methacrylate copolymer and ethylenically unsatd. monomer for)
- IT 90-94-8 119-61-9, uses and miscellaneous 150-76-5 3253-39-2
3524-68-3 15625-89-5 51979-61-4 69608-18-0
RL: USES (Uses)
(photosensitive compns. containing tetrahydrofurfuryl methacrylate copolymer and, for printed **elec.** circuit **protective coatings** and soldering resists)
- IT 65697-20-3 69572-74-3 69608-13-5 69608-14-6
69608-15-7 69608-16-8
RL: USES (Uses)
(photosensitive compns. containing, for printed **elec.** circuit **protective coatings** and soldering resists)
- IT 69608-13-5 69608-14-6 69608-15-7
69608-16-8
RL: USES (Uses)
(photosensitive compns. containing, for printed **elec.** circuit

protective coatings and soldering resists)

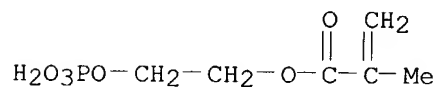
RN 69608-13-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate, 2-(phosphonooxy)ethyl 2-methyl-2-propenoate and tetrahydro-2-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 24599-21-1

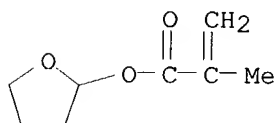
CMF C6 H11 O6 P



CM 2

CRN 15895-80-4

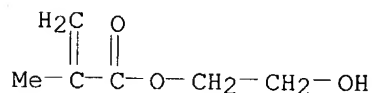
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CM 3

CRN 868-77-9

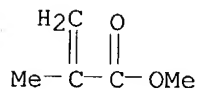
CMF C6 H10 O3



CM 4

CRN 80-62-6

CMF C5 H8 O2

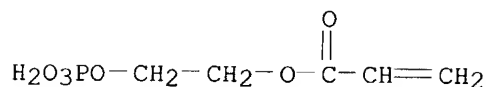


RN 69608-14-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate, 2-(phosphonooxy)ethyl 2-propenoate and tetrahydro-2-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

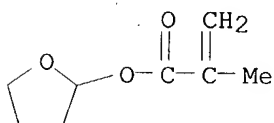
CM 1

CRN 32120-16-4
CMF C5 H9 O6 P



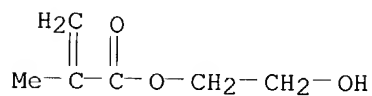
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CRN 15895-80-4
CMF C8 H12 O3



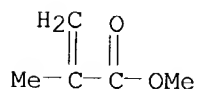
CM 3

CRN 868-77-9
CMF C6 H10 O3



CM 4

CRN 80-62-6
CMF C5 H8 O2

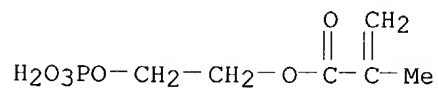


RN 69608-15-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 2-(phosphonooxy)ethyl
2-methyl-2-propenoate and tetrahydro-2-furanyl 2-methyl-2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 24599-21-1

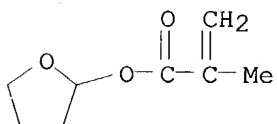
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CM 2

CRN 15895-80-4

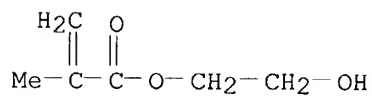
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CRN 868-77-9

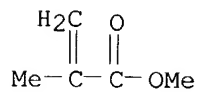
CMF C6 H10 O3



CM 4

CRN 80-62-6

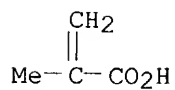
CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



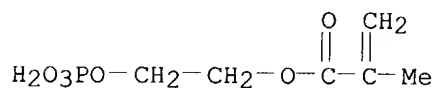
RN 69608-16-8 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with
2-(phosphonoxy)ethyl 2-methyl-2-propenoate and tetrahydro-2-furanyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

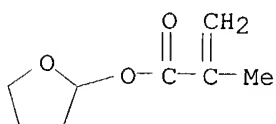
CM 1

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CMF C6 H11 O6 P



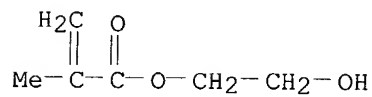
CM 2

CRN 15895-80-4
CMF C8 H12 O3



CM 3

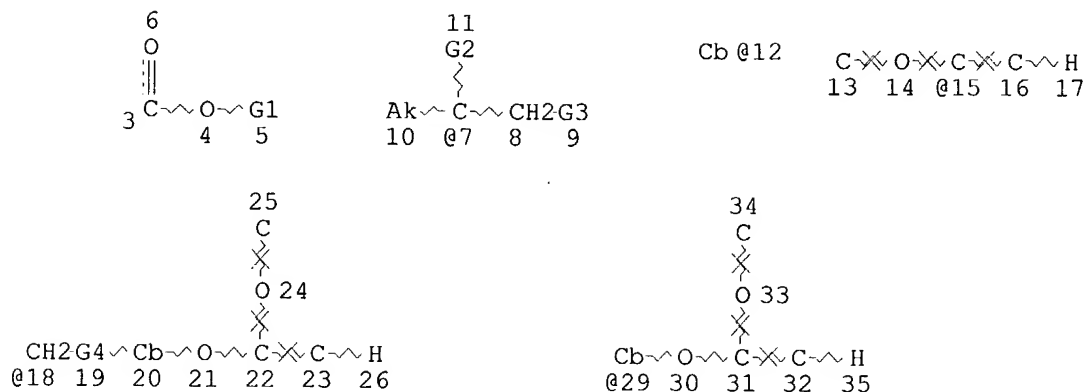
CRN 868-77-9
CMF C6 H10 O3



=> => D QUE L54

L5 SCR 2043
L12 STR

Compound
C



VAR G1=7/15/18/29

VAR G2=H/AK

VAR G3=H/12

REP G4=(0-9) CH2

NODE ATTRIBUTES:

NSPEC	IS	RC	AT	13
NSPEC	IS	RC	AT	14
NSPEC	IS	RC	AT	15
NSPEC	IS	RC	AT	16
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NSPEC	IS	RC	AT	25
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NSPEC	IS	RC	AT	32
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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

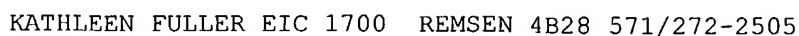
NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

L15 SCR 193 OR 195

L17 21384 SEA FILE=REGISTRY SSS FUL L12 AND L5 AND L15

L48 STR



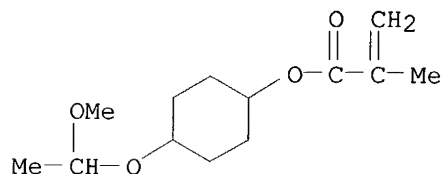
IN Nozaki, Koji; Yano, Ei; Kozawa, Miwa
 PA Fujitsu Limited, Japan
 SO Eur. Pat. Appl., 47 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1184723	A2	20020306	EP 2001-307380	20010830
	EP 1184723	A3	20030917		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002148805	A2	20020522	JP 2001-168630	20010604
	US 2002058197	A1	20020516	US 2001-935832	20010824
PRAI	JP 2000-266041	A	20000901		
	JP 2001-168630	A	20010604		
AB	A neg. resist composition is provided which comprises at least a constituent component which has a vinyl ether structure protected with an acetal in a mol. In the formation of neg. resist patterns, an aqueous basic solution can be used without swelling. A process is also provided for forming a resist pattern, which comprises the steps of: applying a neg. resist composition comprising at least a constituent component which has a vinyl ether structure protected with an acetal in a mol., on a treated substrate; selectively exposing the formed resist film to imaging radiation capable of provoking decomposition of a photoacid generator of the resist composition, and developing the exposed resist film with an aqueous basic solution. A process is also provided for manufacturing an electronic device, which comprises the step of selectively removing an underlying treated substrate using a resist pattern, formed from the above-mentioned process, as a masking means to form a predetd. functional element layer.				
IC	ICM G03F007-075				
CC	74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)				
IT	Section cross-reference(s): 76				
	33693-68-4DP, reaction products with 2-cyanoethyltrichlorosilane hydrolytic homopolymer 181036-41-9DP, 2-Cyanoethyltrichlorosilane hydrolytic homopolymer, reaction products with 2(3H)-Furanone, 3-bromodihydro-4-methyl- and 2-methoxy-6-bromomethyltetrahydropyran				
	402751-01-3P	402751-04-6P	402751-07-9P	402751-09-1P	
	402751-11-5P	402751-17-1P	402751-22-8P	402751-28-4P	402751-34-2P
	402751-50-2P	402751-54-6P	402751-56-8P		
	402751-59-1DP, reaction products with 2-cyanoethyltrichlorosilane hydrolytic homopolymer 402755-85-5P 402758-23-0P				
	RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(neg. resist composition and photolithog. process for fabrication of MOS transistors and thin-film magnetic heads)				
IT	402751-39-7	402751-45-5			
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(neg. resist composition and photolithog. process for fabrication of MOS transistors and thin-film magnetic heads)				
IT	402751-07-9P 402751-54-6P 402751-56-8P				
	RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(neg. resist composition and photolithog. process for fabrication of MOS transistors and thin-film magnetic heads)				

RN 402751-07-9 HCAPLUS
 CN Tricyclo[3.3.1.1^{3,7}]decane-1-carboxylic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 4-(1-methoxyethoxy)cyclohexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

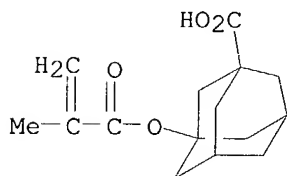
CM 1

CRN 402751-06-8
 CMF C13 H22 O4



CM 2

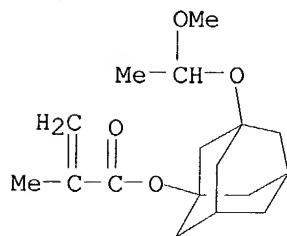
CRN 212580-10-4
 CMF C15 H20 O4



RN 402751-54-6 HCAPLUS
 CN Tricyclo[3.3.1.1^{3,7}]decane-1-carboxylic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 3-(1-methoxyethoxy)tricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and octahydro-3-oxo-3H-3a,7:5,9-dimethanocycloocta[c]furan-5-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

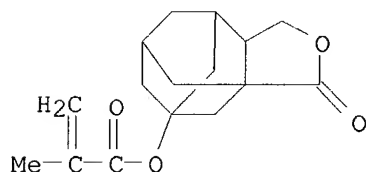
CM 1

CRN 402751-53-5
 CMF C17 H26 O4



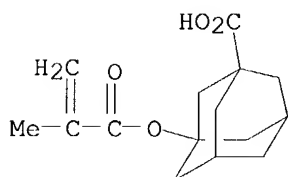
CM 2

CRN 402751-49-9
CMF C16 H20 O4



CM 3

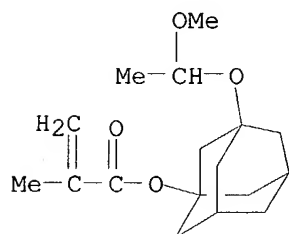
CRN 212580-10-4
CMF C15 H20 O4



RN 402751-56-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(1-methoxyethoxy)tricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with N-hydroxy-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

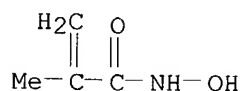
CM 1

CRN 402751-53-5
CMF C17 H26 O4



CM 2

CRN 55144-27-9
CMF C4 H7 N O2



IT 402751-45-5

RL: TEM (Technical or engineered material use); USES (Uses)
(neg. resist composition and photolithog. process for fabrication of MOS transistors and thin-film magnetic heads)

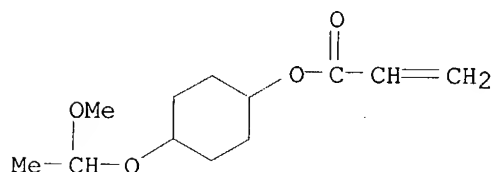
RN 402751-45-5 HCAPLUS

CN 2-Propenoic acid, 4-(1-methoxyethoxy)cyclohexyl ester, homopolymer (9CI)
(CA INDEX NAME)

CM 1

CRN 402751-44-4

CMF C12 H20 O4



L54 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:261337 HCAPLUS

DN 134:303008

TI Positive-working chemically amplified x-ray and electron-beam sensitive composition and method for forming resist pattern using same

IN Nio, Hiroyuki; Tamura, Kazutaka; Obayashi, Gentaro

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001100403	A2	20010413	JP 1999-276330	19990929
PRAI	JP 1999-276330		19990929		

AB The composition contains a polymer and an acid generator which is sensitive to x-ray and electron-beam, wherein the polymer has repeating unit derived from α -haloacrylate with an acid sensitive **protecting** group. The composition, which contains the polymer, provides the high resolution,

the high sensitivity, and the good dry-etching resistance.

IC ICM G03F007-004

ICS G03F007-033; G03F007-039; G03F007-20; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

IT 261368-26-7P 334535-56-7P, 1-Isobutoxyethyl α -bromoacrylate-methyl methacrylate copolymer 334535-57-8P **334535-58-9P**
334535-59-0P 334535-60-3P 334535-61-4P 334535-62-5P,

1-(2,2,2-Trifluoroethoxy)ethyl α -chloroacrylate-2-hydroxyethyl
methacrylate copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(polymer in pos.-working chemical amplified x-ray and electron-beam
sensitive composition)

IT 334535-58-9P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(polymer in pos.-working chemical amplified x-ray and electron-beam
sensitive composition)

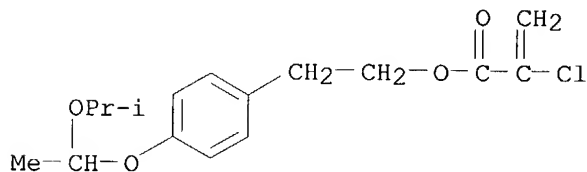
RN 334535-58-9 HCAPLUS

CN 2-Propenoic acid, 2-chloro-, 2-[4-[1-(1-methylethoxy)ethoxy]phenyl]ethyl
ester, polymer with 2,2,2-trifluoroethyl 2-methyl-2-propenoate (9CI) (CA
INDEX NAME)

CM 1

CRN 334535-51-2

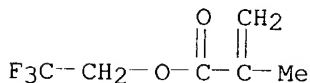
CMF C16 H21 Cl O4



CM 2

CRN 352-87-4

CMF C6 H7 F3 O2



L54 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1991:643752 HCAPLUS

DN 115:243752

TI Positive, chemically-amplified aromatic methacrylate resist employing the
tetrahydropyranyl **protecting** group

AU Taylor, Gary N.; Stillwagon, Larry E.; Houlihan, Francis M.; Wolf, Thomas
M.; Sogah, Dotsevi Y.; Hertler, Walter R.

CS AT and T Bell Lab., Murray Hill, NJ, 07974, USA

SO Chemistry of Materials (1991), 3(6), 1031-40

CODEN: CMATEX; ISSN: 0897-4756

DT Journal

LA English

AB The synthesis, properties and lithog. behavior of a new class of chemical
amplified, pos.-tone, aromatic methacrylate resists incorporating the
tetrahydropyranyl **protecting** group bound to base-solubilizing
carboxylic acid moieties are described. Copolymers containing equimolar amts.

of benzyl methacrylate and tetrahydropyranyl methacrylate were prepared by free-radical and group-transfer polymerization (GTP). Photogenerated sulfonic acids formed from covalent ester or ionic salt precursors were used to remove the acid-labile tetrahydropyranyl (THP) group by heating after exposure. The resulting copolymers of benzyl methacrylate (BMA) and methacrylic acid (MAA) are extremely soluble in aqueous base solns. when the concentration exceeds 38 mol %, thus affording pos. tone patterns. This class of resins has low absorbance at 248 nm needed for patterning $\geq 1\text{-}\mu\text{m}$ -thick films. The moderate THP group concentration and its relatively small size minimize shrinkage during thermal and plasma processing. The nearly monodisperse polymers formed by GTP offer the advantages of better mol. weight control and the opportunity to study the effect of mol. weight distribution on this class of resists. These copolymer resists have high sensitivity ($< 30\text{ mJ/cm}^2$) when formulated with aromatic sulfonate or trifluoromethyl sulfonate sensitizers. Contrast is > 2 and submicrometer patterns in $1\text{-}\mu\text{m}$ -thick films are resolved. Resolution is significantly influenced by the sensitizer, postexposure heating, and development conditions. Resolution presently is limited by resist adhesion which remains to be optimized. Plasma etching resistance to conditions used to etch Al is 1.8 times less than for hard-baked HPR-206 photoresist but can be improved to a value of 1.5 by postexposure thermolysis. Improvements are needed before this type of chemical amplified resist is able to meet all deep-UV lithog. requirements.

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **136750-62-4P**
RL: PREP (Preparation)
(preparation of, for chemical amplified resist system study)

IT **136750-62-4P**
RL: PREP (Preparation)
(preparation of, for chemical amplified resist system study)

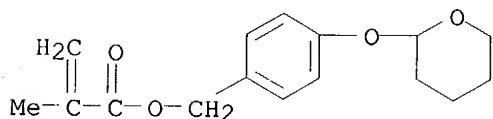
RN 136750-62-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 136750-61-3

CMF C16 H20 O4



=> S L52 NOT L54
L64 8 L52 NOT L54

=> D L64 1-8 BIB ABS HITSTR

L64 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:890212 HCAPLUS

*Remaining 8 CA references
for C - no
utility specified*

DN 139:388469
 TI Thionium salt photoacid generators for chemically amplified resists and patterning method using the same
 IN Osawa, Yoichi; Nishi, Tsunehiro; Kobayashi, Tomohiro
 PA Shin-Etsu Chemical Industry Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 36 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003322964	A2	20031114	JP 2002-129876	20020501
PRAI	JP 2002-129876		20020501		

OS MARPAT 139:388469

AB The photoacid generators $R_1R_2S+CH_2R_3C:CR_4R_5.Y^-$ (I; $R_1, R_2 = C_1-6$ unsubstituted or O-containing alkyl; $R_3-R_5 = H, C_1-6$ alkyl, C_6-12 aryl; ≥ 1 of R_3-R_5 are C_6-12 aryl; $Y^- = C_1-10$ alkylsulfonate, C_6-20 arylsulfonate, C_2-10 bisalkylsulfonylimide, C_3-12 trisalkylsulonylmethide) or $R_1R_2S+CH_2C_6H_5-nR_7n.Y^-$ (II; $R_1, R_2, Y^- =$ same as above; $R_7 = H, C_1-6$ alkyl, C_1-6 alkoxy, NO_2, F, Cl ; $n = 1-5$), and pos. resists containing I or II and resins increasing alkali solubility by acid action are sep. claimed. UV (≤ 250 nm) or electron-beam lithog. on the resists, producing submicron patters with good edge sharpness, is further claimed.

IT 623932-39-8 623932-41-2

RL: TEM (Technical or engineered material use); USES (Uses)
 (assumed monomers; chemical amplified pos. resists containing thionium salt photoacid generators for submicron UV or electron-beam lithog.)

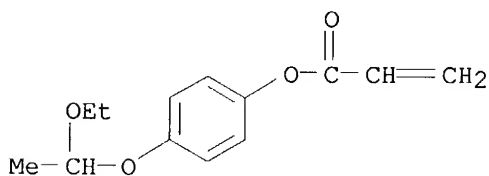
RN 623932-39-8 HCAPLUS

CN 2-Propenoic acid, 4-(1-ethoxyethoxy)phenyl ester, polymer with 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 623932-38-7

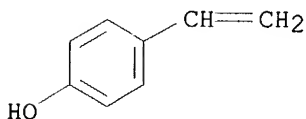
CMF C13 H16 O4



CM 2

CRN 2628-17-3

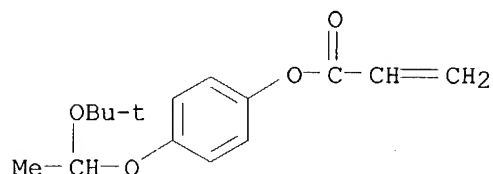
CMF C8 H8 O



RN 623932-41-2 HCAPLUS
 CN 2-Propenoic acid, 4-[1-(1,1-dimethylethoxy)ethoxy]phenyl ester, polymer
 with 4-ethenylphenol and 4-(1-ethoxyethoxy)phenyl 2-propenoate (9CI) (CA
 INDEX NAME)

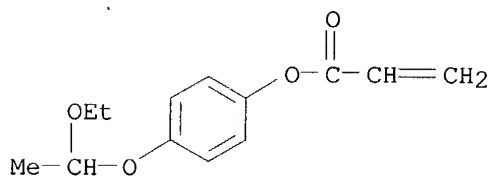
CM 1

CRN 623932-40-1
 CMF C15 H20 O4



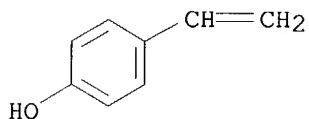
CM 2

CRN 623932-38-7
 CMF C13 H16 O4



CM 3

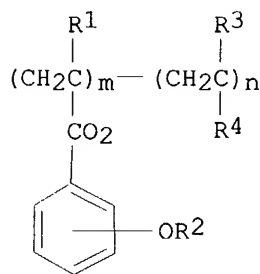
CRN 2628-17-3
 CMF C8 H8 O



L64 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1996:321161 HCAPLUS
 DN 125:71875
 TI Resist compositions using novel acid-labile group-containing polymer
 IN Matsuno, Shugo; Tanaka, Hideyuki; Abe, Nobunori; Wada, Yasumasa; Sugimoto,
 Tatsuya
 PA Nippon Zeon Co, Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08044063	A2	19960216	JP 1994-196082	19940728
	JP 3282394	B2	20020513		
PRAI	JP 1994-196082		19940728		
GI					



I

AB The title resist compns. contain a radiation-sensitive component and a polymer having a structural unit I [R1, R3 = H, C1-4 (substituted) alkyl, halo, CN: R2 = H, CR5R6R7, CR8R9OR10, CR11R12CO2R13, CO2R14, (R5-7, R10, R13, R14 = C1-8 linear, branched or cyclic alkyl which may be substituted, aryl; R8, R9, R11, R12 = H, C1-8 linear, branched or cyclic alkyl which may be substituted, (substituted) aryl, R5 and R6 or R8 and R10 may form a ring); R4 = C6H4R15, CO2R16 [R15 = H, OH, halo, CO2H, C1-8 linear, branched or cyclic alkoxy which may be substituted, alkoxy carbonyl, alkoxy carbonylmethoxy; R16 = H, C1-8 (substituted) alkyl, (substituted) aryl]; k and m indicate molar fraction, k + m = 1, 0 < k ≤ 1, 0 ≤ m < 1]. A resist comprising 4-hydroxyphenyl methacrylate-4-tert-amyloxy carbonylmethoxyphenyl methacrylate copolymer and Ph3S+.CF3SO3- showed high sensitivity and gave high-resolution patterns with good etch resistance by using a KrF excimer laser.

IT 178606-26-3P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(resist compns. containing acid-labile group-containing polymers for high-resolution patterning and etch resistance)

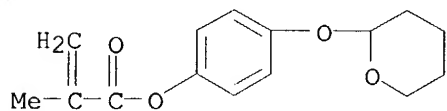
RN 178606-26-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 4-hydroxyphenyl ester, polymer with 4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 178606-25-2

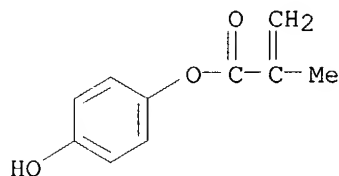
CMF C15 H18 O4



CM 2

CRN 31480-93-0

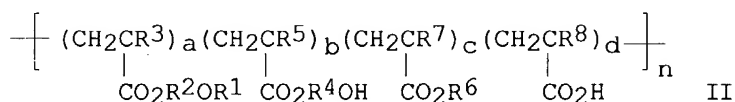
CMF C10 H10 O3



L64 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1995:974116 HCAPLUS
 DN 124:160399
 TI Vinyl group-containing monomer, its polymer, and photosensitive resin composition
 IN Nakano, Kaichiro; Iwasa, Shigeyuki; Hasegawa, Etsuo
 PA Nippon Electric Co, Japan
 SO Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07252324	A2	19951003	JP 1994-280695	19941115
	JP 2776273	B2	19980716		
	US 5621019	A	19970415	US 1995-380994	19950131
PRAI	JP 1994-9030		19940131		
	JP 1994-280695		19941115		

GI



AB The title monomer is shown as $\text{R}^1\text{OR}^2\text{OC(O)C(R}^3\text{):CH}_2$ (I; $\text{R}^1 = \text{H}$, tert-butoxycarbonyl, tetrahydropyran-2-yl, tetrahydrofuran-2-yl, 4-methoxytetrahydropyranyl, 1-ethoxyethyl, 1-butoxyethyl, 1-propoxyethyl; $\text{R}^2 =$ bridged cyclic hydrocarbon-containing C7-12 hydrocarbon residue; $\text{R}^3 = \text{H}$, Me). The vinyl group-containing polymer is shown as II ($\text{R}^1, \text{R}^6 = \text{H}$, tert-butoxycarbonyl, tetrahydropyran-2-yl, tetrahydrofuran-2-yl, 4-methoxytetrahydropyranyl, 1-ethoxyethyl, 1-butoxyethyl, 1-propoxymethyl; $\text{R}^2, \text{R}^4 =$ bridged cyclic hydrocarbon-containing C7-12 hydrocarbon residue; $\text{R}^3, \text{R}^5, \text{R}^7-8 = \text{H, Me}$; $a + b + c + d = 1$; $a = b \neq 0$; $a = 0-0.9$; $b = 0-0.9$; $c = 0-0.7$; $d = 0-0.5$; $n = 10-500$). The photosensitive composition contains 75-99.8 parts of the polymer resin and 0.2-25 parts of a generator of an acid by light irradiation Far-UV ray at wavelength ≤ 220 nm is preferable for exposing the composition

IT 173161-81-4P

RL: IMF (Industrial manufacture); PREP (Preparation)

(bridged cyclic hydrocarbon (meth)acrylate and its polymer and
photosensitive composition with far-UV ray developability)

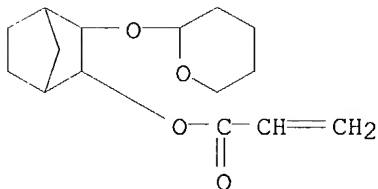
RN 173161-81-4 HCAPLUS

CN 2-Propenoic acid, 3-[(tetrahydro-2H-pyran-2-yl)oxy]bicyclo[2.2.1]hept-2-yl
ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 173161-80-3

CMF C15 H22 O4



L64 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:506168 HCAPLUS

DN 122:252105

TI Positive photoresist with better properties

IN Schaedeli, Ultrich; Muenzel, Norbert

PA Ciba-Geigy A.-G., Switz.; OCG Microelectronics Inc.

SO Eur. Pat. Appl., 19 pp.

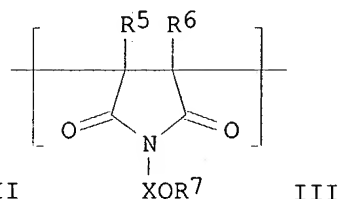
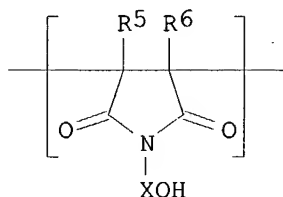
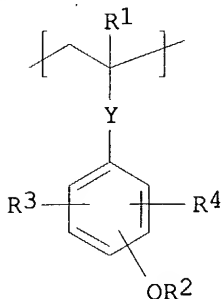
CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 601974	A1	19940615	EP 1993-810824	19931125
	EP 601974	B1	19970528		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	JP 06239937	A2	19940830	JP 1993-339657	19931203
	US 5369200	A	19941129	US 1993-160818	19931203
	US 5397680	A	19950314	US 1994-249972	19940527
PRAI	CH 1992-3723		19921204		
	US 1993-160818		19931203		
OS	MARPAT 122:252105				
GI					



AB The polymers having a mol. weight of 103-106 and the formulas I, II, III [R1 = H, Me; Y = single bond, divalent group of the formula -Z-O-CO- (Z = phenylene bonded to an alkylene group); OR2 = acid-splittable group from where R2 = tert-alkyl, allyl, cyclohex-2-enyl, aryl, aralkyl, trialkylsilyl, -C(OR8)O, 2-tetrahydropyranyl optional substituted with OR8 at 6-position, 2-tetrahydrofuryl (R8 = alkyl, aryl, aralkyl); R3, R4 = H, alkyl, alkoxy halogen; R5, R6 = H, Me; X = alkylene; R7 = alkyl, aryl, aralkyl, COR8], and photosensitive comps. containing the polymers (for deep UV photoresist, for example) are described. The material has sharply reduced delay time-effect and high thermal stability and dissoln. power.

IT **162456-98-6**

RL: MOA (Modifier or additive use); USES (Uses)

(polymer for reduced delay time-effect and high thermal stability and dissoln. power)

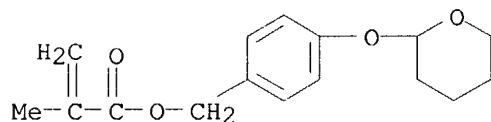
RN 162456-98-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]methyl ester, polymer with 1-[(acetyloxy)methyl]-1H-pyrrole-2,5-dione and 1-(hydroxymethyl)-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 136750-61-3

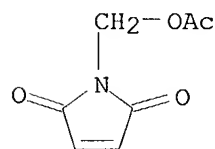
CMF C16 H20 O4



CM 2

CRN 7450-68-2

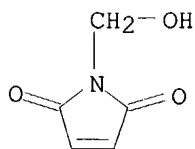
CMF C7 H7 N O4



CM 3

CRN 5063-96-7

CMF C5 H5 N O3



L64 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1992:436605 HCAPLUS
 DN 117:36605
 TI Radiation-sensitive resist composition containing alkoxyalkylcarboxylate polymer
 IN Hertler, Walter Raymond; Sogah, Dotsevi Yao; Taylor, Gary Newton
 PA du Pont de Nemours, E. I., and Co., USA; AT and T Bell Laboratories
 SO PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9115810	A1	19911017	WO 1991-US1977	19910328
	W: CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	US 5206317	A	19930427	US 1990-507342	19900410
	CA 2080365	AA	19911011	CA 1991-2080365	19910328
	EP 524246	A1	19930127	EP 1991-907890	19910328
	EP 524246	B1	19960508		
	R: CH, DE, ES, FR, GB, IT, LI, NL				
	ES 2089209	T3	19961001	ES 1991-907890	19910328
	JP 09507304	T2	19970722	JP 1991-507745	19910328
	JP 3045542	B2	20000529		
	US 5212047	A	19930518	US 1992-837508	19920218
PRAI	US 1990-507342	A	19900410		
	WO 1991-US1977	W	19910328		

AB A radiation-sensitive resist composition having excellent sensitivity and resolution and suited for semiconductor device and mask fabrication comprises a polymer having recurring pendants bound directly or indirectly to its backbone and represented by the formula CO₂C(R₁)(OR₂)CHR₃R₄ or CO₂(CH₂)_nC₆H₄OC(R₁)(OR₂)CHR₃R₄ (R₁ = H or lower alkyl; R₂ = lower alkyl or R₁R₂ together forming a 5-7-membered ring; R₃, R₄ = H or lower alkyl or R₁R₃, R₁R₄, R₂R₃, or R₂R₄ together forming a 5-7-membered ring) and a compound generating an acid upon activation with visible light, UV radiation, electron beams, or x-rays.

IT **136750-62-4P**

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and use of, in radiation-sensitive resist compns.)

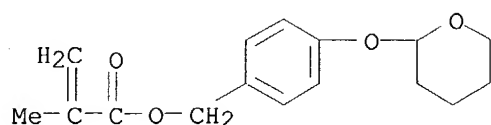
RN 136750-62-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 136750-61-3

CMF C16 H20 O4



L64 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1992:204548 HCAPLUS
 DN 116:204548
 TI Positive working resist compositions and their utility in dry film photoresists
 IN Bauer, Richard Douglas; Chen, Gwendyline Yuan Yu; Hertler, Walter Raymond; Wheland, Robert Clayton
 PA du Pont de Nemours, E. I., and Co., USA
 SO PCT Int. Appl., 55 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

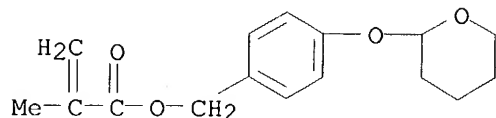
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9115809	A1	19911017	WO 1991-US1069	19910225
	W: CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	US 5077174	A	19911231	US 1990-507337	19900410
	CA 2080364	AA	19911011	CA 1991-2080364	19910225
	EP 524187	A1	19930127	EP 1991-904946	19910225
	EP 524187	B1	19960710		
	R: CH, DE, FR, GB, IT, LI, NL, SE				
	JP 05506106	T2	19930902	JP 1991-504731	19910225
	SG 72656	A1	20000523	SG 1996-7247	19910225
	US 5145764	A	19920908	US 1991-757081	19910910
PRAI	US 1990-507337	A	19900410		
	WO 1991-US1069	W	19910225		

AB A dry film photoresist element is described comprising a thin flexible polymeric film support having adhered thereto with low to moderate adherence a solid photosensitive layer having a thickness of .gtorsim.8 μ m and comprising a polymer and a initiator system. The polymer is chosen from compns. having a polymer backbone and pendant acid-labile groups which are bound to the polymer backbone, where the acid-labile groups are $-\text{CO}_2\text{C}(\text{R}_1)(\text{OR}_2)\text{CHR}_3\text{R}_4$ or $-\text{CO}_2(\text{CH}_2)_n-\text{C}_6\text{H}_4-\text{OC}(\text{R}_1)(\text{OR}_2)\text{CHR}_3\text{R}_4$ [$\text{R}_1, \text{R}_3, \text{R}_4 = \text{H}$, lower alkyl; R_2 is lower alkyl; R_1 and R_2 or R_1 and either R_3 or R_4 , or R_2 and either R_3 or R_4 may form a 5-, 6-, or 7-membered ring. The initiator system comprises an initiator or an initiator and ≥ 1 sensitizer that generates, upon exposure to actinic radiation of .apprx.3000-9000 \AA a catalytic amount of a strong acid. The photoresist film is also developable by fully aqueous methods. The film does not require post exposure to high temps. Processes of making photoresist on a surface are also claimed.

IT **136750-62-4P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and use of, in pos.-working resist composition)
 RN 136750-62-4 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, [4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 136750-61-3
CMF C16 H20 O4



L64 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:204547 HCAPLUS
DN 116:204547
TI Resist material for use in thick film resists
IN Bauer, Richard Douglas; Chen, Gwendyline Yuan Yu; Hertler, Walter Raymond;
Wheland, Robert Clayton
PA du Pont de Nemours, E. I., and Co., USA
SO PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9115808	A1	19911017	WO 1991-US1068	19910225
	W: CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	US 5120633	A	19920609	US 1990-508136	19900410
	EP 524250	A1	19930127	EP 1991-908013	19910225
	R: DE				
	JP 05506731	T2	19930930	JP 1991-507819	19910225
	US 5262281	A	19931116	US 1992-847645	19920310
PRAI	US 1990-508136		19900410		
	WO 1991-US1068		19910225		

AB A liquid resist composition is described comprising a polymer, an initiator system, and a solvent. The polymer is chosen from compns. having a polymer backbone and pendant acid-labile groups which are bound to the polymer backbone, where the acid-labile groups are -CO₂C(R₁)(OR₂)CHR₃R₄ or -CO₂(CH₂)_n-C₆H₄-OC(R₁)(OR₂)CHR₃R₄ [R₁, R₃, R₄ = H, lower alkyl; R₂ is lower alkyl; R₁ and R₂ or R₁ and either R₃ or R₄, or R₂ and either R₃ or R₄ may form a 5-, 6-, or 7-membered ring]. The initiator system comprises an initiator or an initiator and ≥1 sensitizer that generates, upon exposure to actinic radiation of .apprx.3000-9000 Å, a catalytic amount of a strong acid is preferably having pK_a ≤ 2. The photoresist film is developable by fully aqueous methods. The film does not require post exposure to high temps. Processes of making photoresist image on a surface are also claimed.

IT **136750-62-4P**

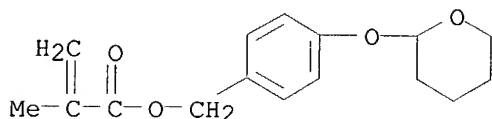
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, in pos.-working resist composition)

RN 136750-62-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

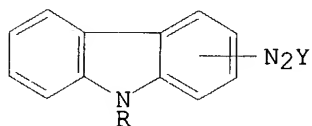
CRN 136750-61-3
CMF C16 H20 O4



L64 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:31434 HCAPLUS
DN 116:31434
TI Resist material with carbazole diazonium salt acid generator
IN Anderson, Albert G.; Hertler, Walter R.; Wheland, Robert C.; Chen, Yuan Yu G.
PA du Pont de Nemours, E. I., and Co., USA
SO U.S., 7 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4985332	A	19910115	US 1990-508134	19900410
	WO 9115807	A1	19911017	WO 1991-US1067	19910225
	W: CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	US 5219711	A	19930615	US 1992-884021	19920518
PRAI	US 1990-508134		19900410		
	US 1990-591124		19901001		

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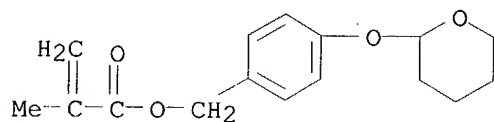
AB Excellent resolution and sensitivity in the patterning of resists utilized in device and mask manufacture is obtained with composition involving polymers having recurring pendant acid labile groups of the formula $-\text{CO}_2\text{C}(\text{R}_1)(\text{OR}_2)\text{CHR}_3\text{R}_4$ on $-\text{CO}_2(\text{CH}_2)_n\text{C}_6\text{H}_4\text{OC}(\text{R}_1)(\text{OR}_2)\text{CHR}_3\text{R}_4$, where $n = 0-4$; $\text{R}_1, \text{R}_3, \text{R}_4 = \text{H}$ on C1-6 alkyl; $\text{R}_2 = \text{C1-6 alkyl}$; and R_1 and R_2, R_1 and R_3 on R_4 , on R_2 and R_3 on R_4 may be joined to form a 5-, 6-, on 7-membered ring, and a material that forms an acid on irradiation, of the formula I, where N_2Y is in the 1- or 3-position; $\text{Y} = \text{PF}_6-, \text{AsF}_6-, \text{SbF}_6-, \text{FeCl}_4-, \text{SnCl}_6-, \text{SbCl}_6-, \text{BF}_4-, \text{or BiCl}_5-;$ and $\text{R} = \text{C1-16 alkyl}, (\text{un})\text{substituted benzyl or Ph, or cycloalkyl}.$
IT **136750-62-4P**
RL: PREP (Preparation)
(preparation of, for photoresist compns.)
RN 136750-62-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 136750-61-3

CMF C16 H20 O4



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